66

15 Cents a Copy

The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

Published Every Thursday TULSA, OKLAHOMA, JULY 14, 1927 $6.00 a Year

THE JOHN CRERAR JUL 1927 LIBRARY

Crerar John Library E1.5b.T.12.31

Slow to accept, quick to reject sure to perfect

BRIDGEPORT has always been slow to accept, quick to reject but sure to perfect any tool offered under its name to the oil world.

Before Bridgeport stamps its name on a tool it first must have been field proven.

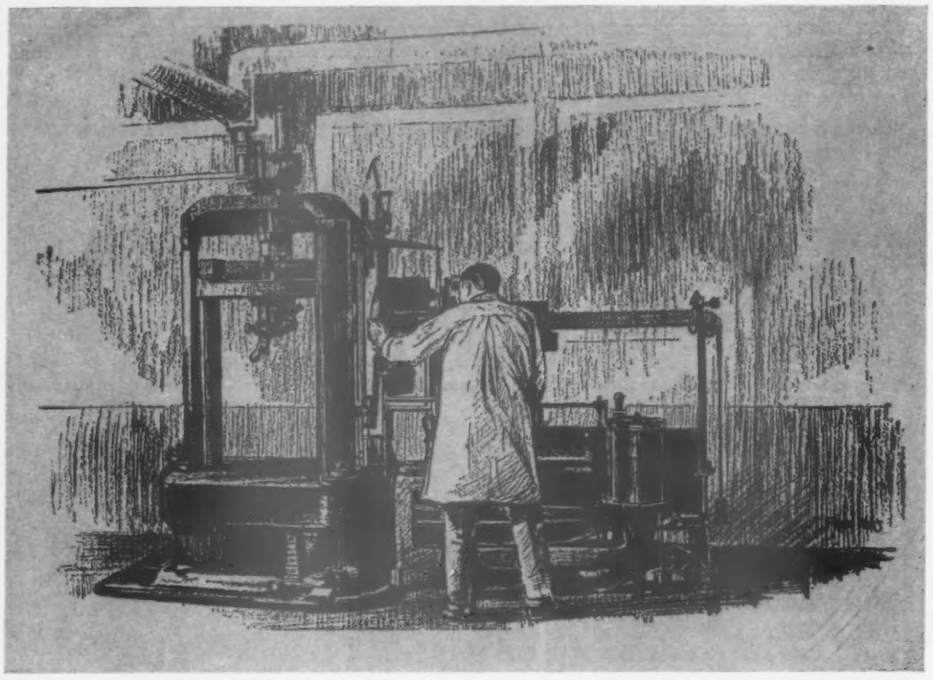
Through its engineering department and laboratory it is continuously experimenting with tests for bettering the quality of its old products and creating new, but before these are offered they must have passed every test possible.

When you buy a Bridgeport tool you may be certain that it represents the best of today's thought and methods.

You are the direct beneficiary of this Bridgeport business policy.

THE BRIDGEPORT MACHINE COMPANY WICHITA KANSAS

Advertisers' Index on Page 25 Table of Contents on Page 26



You might drill for oil all your life long, and never get a sight of this marvelous device

BUT the Olsen Tensile-Test Machine, and what it reveals about steels—or any other material—is as vital to your job's earnings, and as essential to quick and profitable drilling as is the most familiar tool you use or know. Studying the Olsen device as it exerts a tearing power of two hundred thousand pounds, the Reed experts are able to forestall the slightest chance that any operation shall have to slow up or stop through any fault in anything Reed makes.

Certainty! That is what this machine underwrites for the driller. This machine, and a long and immensely costly row of others as vital to the making of steels, to the building of tools a man can depend upon to the uttermost last limit—and somewhat, it may be, beyond that limit. For in every Reed Bit there is a reserve of strength—gotten there by the skilled use of just such machines as this, which never cease their vigilance over our output. And many and many a time that reserve makes the difference between profit and loss, right at the derrick itself.

REED ROTARY DRILLING TOOLS

WE CAN'T AFFORD TO GUESS!
NOR CAN YOU!

If you need to KNOW for sure how and why Reed Tools are money-makers for the rotary drilling industry, tell us to send you a book that puts the whole story into plain—but interesting words.

REED ROLLER BIT COMPANY

HOUSTON - LOS ANGELES

The ADVERTISERS' INDEX

A

Acme Fishing Tool Co.
Ajax Iron Works 58-59
Ajax Rope Co. 168
Allegheny Steel Co.
Aluminum Co. of America
Amarillo Hotel
American Asphalt Paint Co.
American Cable Co., Inc. 23
American Car & Foundry Co.
American Manganese Steel Co.
American Radiator Co.
American Roller Bearing Co. 107
American Rolling Mill Co.
American Schaeffer & Budenberg Corp.
American Sheet & Tin Plate Co. 118
American Spiral Pipe Works
American Telephone & Telegraph Co.
American Well Works
Anderson Engine & Foundry Co.
Andrews Steel Co. 123
Arco Company, The 8
Armstrong Bros. Tool Co. 168
Association of Natural Gasoline Mfgrs.
Athey Truss Wheel Co.
Auer, C. A.
Austin Co. 117
Axelson Machine Co. 78

B

B. & A. Specialty Co.
Baash-Ross Tool Co.
Babcock & Wilcox Tube Co., The
Baker Casing Shoe Co. 57
Barber Asphalt Co.
Barber-Greene Co.
Barco Manufacturing Co. 15
Barnickel, Wm. B., & Co. 167
Barnsdall Refineries, Inc. 61-62
Bartlesville Supply Co. 98
Beaumont Iron Works Co.
Becker Specialty Co.
Benjamin Electric Mfg. Co.
Bessemer Gas Engine Co. 77
Bethlehem Steel Co.
Biggs Boiler Works Co. 19
Bignall & Keeler Machine Works 4
Blackmer Pump Co.
Blaw-Knox Co. 18
Borden Co.
Bovaird & Seyfang Mfg. Co.
Bovaird Supply Co., The 80
Braden Steel & Winch Co.
Braun, C. F. & Co. 147
Breezy Point Lodge 168
Broderick & Bascom Rope Co. 100
Bridgeport Machine Co. ..... Front Cover
Bristol Co.
Brooks Engineering Corp.
Brown, Arthur C. 169
Brown Instrument Co.
Browneil Co. 168
Buckeye Traction Ditcher Co.
Buda Co.
Buffalo Bolt Co.
Buffalo Gasolene Motor Co. 113
Bullock, Henry E.
Burns Tool Co. 9
Burt Corp.
Burt Mfg. Co. 152
Butler Mfg. Co.
Byron Jackson Pump & Mfg. Co., Inc. 96

C

Cameron Iron Works
Campbell, J. A. 101
Canadian Pacific Railway Co.
Carbondale Machine Co.
Celite Products Co.
Central Alloy Steel Corp.
Central Tube Co. 164
Chain Belt Co.
Champion Machine & Forging Co.
Chaplin-Fulton Mfg. Co. 162
Chapman Valve Mfg. Co.
Chestnut & Smith Corp.
Chicago Bridge & Iron Works
Chicago Pneumatic Tool Co. 114
Chisholm-Moore Mfg. Co. 106
Clark Brothers Co. 66-67
Classified Wants 126-127
Cleveland Trencher Co., The
Climax Engineering Co.
Columbian Rope Co.
Columbian Steel Tank Co.
Columbus Forge & Iron Co.
Continental Motors Corp.
Continental Supply Co. 21-71
Cook Motor Co., The
Cooper, C. & G., Co. 50
Crane Co.
Crane Packing Co. 115
Crescent Belt Fastener Co.
Crown Central Petroleum Corp.

D

D. & B. Pump & Supply Co.
Darling Valve & Mfg. Co.
Dart, E. M., Mfg. Co.
Davis, G. M., Regulator Co.
Dayton Pipe Coupling Co.
Dearborn Chemical Co.
De La Vergne Machine Co. 112
Delta Electric Co. 167
Detex Watchclock Corp.
Detroit Graphite Co.
Diamond Drill Carbon Co. 169
Dixon, Joseph, Crucible Co.
Dodge Mfg. Co.
Donovan Boiler Works, Inc.
Dresser, S. R., Mfg. Co. 37

D

Dunn Mfg. Co. 41
DuPont de Nemours & Co., E. I., Inc.
Duriron Company, The

E

Eagle-Picher Lead Co. 3
Eastern Torpedo Co.
Eclipse Paint & Mfg. Co.
Edward Valve & Mfg. Co. 109
Elliott Core Drilling Co. 72
Empire Refineries, Inc.
Emsco Derrick & Equipment Co.
Ethyl Gasoline Corp.
Exchange National Bank

F

Fairbanks-Morse & Co.
Federal Supply Co.
Fenwick-Reddaway Mfg. Co.
Fisher Governor Co. 95
Fluor Construction Co.
Foamite-Childs Corp.
Fohs, F. Julius
Foos Gas Engine Co.
Ford Chain Block Co. 112
Foxboro Co., Inc., The 7
Franklin Valveless Engine Co.
Frick-Reid Supply Co. 12

G

Gallagher Co.
Gardner Governor Co.
Garlock Packing Co.
Gasoline Recovery Corp.
Gaso Pump & Burner Mfg. Co. ..... Inside Back Cover
General American Tank Car Corp. 166
General Asbestos & Rubber Co.
General Electric Co.
Gilbert & Barker Mfg. Co. 122
Gilfillan Machine Works
Goodrich, B. F., Rubber Co.
Goodyear Tire & Rubber Co.
Gott, H. P., Mfg. Co. 164
Goulds Pumps, Inc.
Graham Brothers
Graver Corp. 133
Gray Processes Corp.
Greenspon's, Joseph, Sons, Iron & Steel Co. 162
Griscom-Russell Co. 84
Guiberson Corp. 48
Gulf Refining Co. 11
Gustin-Bacon Mfg. Co.

H

Halliburton, Erle P., Co.
Halliburton Oil Well Cementing Co.
Harrisburg Pipe & Pipe Bending Co.
Haynes Stellite Co.
Hazard Mfg. Co.
Heppenstall Forge & Knife Co. 120
Hercules Motors Corp.
Hercules Tool Co.
Heydrick Mapping Co. 169
Hill, Hubbell & Co. 153
Hills-McCanna Co. 116-123-155-160
Hinderliter Tool Co.
Homestead Valve Mfg. Co. 125
Hoover Steel Ball Co.
Hope Engineering & Supply Co. 83
Hopkins, Edwin B. 169
Hough, Charles N., Mfg. Co. 152
Hoyt Metal Co.
Hughes Tool Co. ..... Back Cover
Humble Oil & Refining Co. 111
Hunt, Robert W., Co.

I

Imperial Belting Co. 156
Imperial Brass Mfg. Co., The 156
Imperial Royalties Co.
Indiana Truck Corp.
Ingersoll-Rand Co. 2
International Derrick & Equip Co. 24-88
International Harvester Co. of America.
International Nickel Co.
International Petroleum Exposition 20
International Supply Co.

J

Jarecki Mfg. Co.
Jefferson Union Co.
Jensen Brothers Mfg. Co.
Johns-Manville Corp.
Jones, S. M., Co. 103

K

Kaw Steel Construction Co.
Kellogg, M. W., Co. 54
Kelly, John Eoghan 169
Kennedy Valve Mfg. Co.
Kerotest Mfg. Co.
Keuffel & Esser Co.
Kinley, M. M., Co.

L

Landis Machine Co.
Larkin & Co.
Layne & Bowler Co. 151
Leader Iron Works

H

Leidecker Tool Co.
Leschen, A., & Sons, Rope Co.
Lientz, B. P., & Co.
Lincoln Electric Co.
Linde Air Products Co. 1
Link-Belt Co.
Longyear, E. J., Co. 102
Lubrikup Co., Inc.
Lucas, John & Co., Inc.
Lucey Mfg. Corp.
Ludlow Valve Mfg. Co.
Lufkin Fdy. & Machine Co.
Lufkin Rule Co.
Lunkenheimer Co.

Mc

McCord Radiator & Mfg. Co. 91
McGregor Working Barrel Co. 164
McIntosh & Seymour Corp.
McKee, Arthur G., & Co. 89

M

Macwhyte Co. 120
Madison Kipp Corp.
Magnolia Petroleum Co.
Maloney Tank Mfg. Co. 119
Manzel Brothers Co.
Marco Light & Power Corp.
Marsh Gauge Pole Co. 167
Mason Regulator Co. 85
Master Builders Co.
Mathieson Alkali Works, Inc.
Maverick, Phillip 169
Merco Nordstrom Valve Co.
Merit Oil Equipment Co.
Metric Metal Works
Midwest Piping & Supply Co.
Miller Improved Gas Engine Co. 93
Miller, Max B., & Co., Inc.
Mission Sales Co.
Moon Mfg. Co.
Moore, Lee C., & Co., Inc. 69-74-75
Moore Drop Forging Co. 47
Munn & Co. 169
Myers, F. E., & Bro., Co. 169

N

National Carbon Co., Inc. 1
National Lead Co. 161
National Petroleum Engineering Co. 169
National Supply Co. 86-87
National Transit Pump & Machine Co. 45
National Tube Co.
National Turnbuckle Derrick Co.
Neilan Schumacher & Co. 165
Newton Process Mfg. Co. 35
Norris Brothers, Inc. 97
Norris, W. C.
North American Car Corp. 168
Northern Fire Apparatus Co. 159
Novo Engine Co.
Nuttall, R. D., & Co.
Nye Tool & Machine Works

O

Oakite Products, Inc.
O'Brien Steel Construction Co.
Ohio Injector Co., The
Ohio Steel Foundry Co.
Oil City Iron Works (Corsicana)
Oil City Iron Works, Inc. (Shreveport) 125
Oil Conservation Engineering Co.
Oil Country Specialties Mfg. Co.
Oil Insurance Association
Oil Well Accessories Co.
Oil Well Supply Co. 65
Oklahoma Gas & Electric Co.
Oklahoma Portland Cement Co.
Oxweld Acetylene Co. 1

P

Page Steel & Wire Co.
Paige & Jones Chemical Co., Inc.
Parkersburg Machine Co. 124
Parkersburg Rig & Reel Co. 5
Patrick, R. S. 115
Pattin Brothers Co.
Pelican Well Tool & Supply Co.
Penberthy Injector Co. 158
Petroleum Appliance Co. 121
Petroleum Iron Works Co.
Pforzheimer, Carl H., & Co. 158
Phillips Petroleum Co.
Pittsburgh-Des Moines Steel Co.
Pittsburgh Equitable Meter Co. 14
Pittsburgh Pipe Coil & Bending Co.
Pittsburgh Steel Products Co.
Powell, William Co.
Power Mfg. Co. 167
Power Piping Co. 155
Power Plant Equipment Co.
Power Specialty Co.
Prescott Co., The
Prest-O-Lite Co., Inc., The 1
Pure Oil Co. 149
Pyle National Co.

Q

Quaker City Rubber Co. 169

R

Ratigan, J. P., Co.
Reading Iron Co. 104
Reading Steel Castings Co., Inc. 163

R

Reed Roller Bit Co. ..... Inside Front Cover
Regan Forge & Engineering Co. 110
Reid, Joseph, Gas Engine Co.
Republic Iron & Steel Co.
Republic Supply Co. 6
Ridge Tool Co. 76
Riehle Bros. Testing Machine Co.
Riter-Conley Co. 168
Robinson Orifice Fitting Co.
Rock Island Plow Co.
Roots, P. H. & F. M., Co.
Rossendale-Reddaway Co. 92
Ross-Meehan Foundries
Ryerson, Joseph T., & Sons, Inc. 167

S

Safety Gas Main Stopper Co.
Safety Pulling Machine Co.
Shaffer, J. E., Co.
Shaffer Tool Works
Shaw, S. F.
Sheffield Steel Corp. 165
Sinclair Refining Co. 139
Sivyer Steel Casting Co. 13
Skelly Oil Co.
Skinner, M. B., Co. 162
Smith, A. O., Corp. 17
Smith Separator Co. 52
Smooth-On Mfg. Co. 105
Sonner, P. J., Gas Burner Co.
South Chester Tube Co.
Southern Cornice Works
Southwestern Engineering Corp.
Spang & Co. 154
Spang, Chalfant & Co., Inc. 22
Spence Machine Co.
Standard Rail & Steel Co. 168
Standard Seamless Tube Co. 90
Stanley Belting Corp.
Star Drilling Machine Co.
Stearns-Roger Mfg. Co.
Steiner, George 167
Strom Steel Ball Co.
Sullivan Co., The
Sullivan Machinery Co. 160
Sweet, Wm. J., Foundry Co.

T

Taubman Supply Corp.
Taylor Instrument Companies
Templeton, Kenley & Co., Ltd.
Texas Company, The 108
Texas Pacific Coal & Oil Co.
Texas Steel Co.
Timken Roller Bearing Co. 16
Tips Engine Works
Titusville Forge Co.
Titusville Iron Works 99
Toledo Pipe Threading Machine Co. 81
Trimont Mfg. Co.
Trumble Gas Trap Co.
Tulsa Sheet Metal Co.
Turk & Mauldin 169
Twin Disc Clutch Co.

U

United Iron Works, Inc.
United States Cast Iron Pipe & Fdy. Co.
United States Industrial Diamond Corp. 169
United States Rubber Co.
Universal Oil Products Co. 43
U. S. Tool Co.

V

Vanderbilt Hotel 122
Victaulic Co. of America
Victor Balata & Textile Belting Co.
Vogt, Henry, Machine Co.

W

Wagner Electric Corp. 166
Wailes Dove-Hermiston Corp.
Wall Rope Works, Inc.
Walsh & Weidner Boiler Co.
Walworth Co.
Washburne, Chester W. 169
Waukesha Motor Co.
Westcott & Greis 157
Westinghouse Electric & Mfg. Co.
Wheelton & Townsend, Inc.,
Wheeler Condenser & Engineering Co.
Wheeling Steel Corp.
Wickwire Spencer Steel Co.
Wico Electric Co.
Widdell Engineering Co. 89
Williams, J. H., & Co.
Williamsport Wire Rope Co.
Williams Tool Corp.
Wilson Oil Tools Corp.
Wilson-Snyder Mfg. Co.
Witchell-Sheill Co.
Witte Engine Works
W-K-M Company, Inc.
Worthington Pump & Machinery Corp.
Wright Mfg. Co.

Y

Yale & Towne Mfg. Co.
Young Engine Corp.

Z

Zero Hour Torpedo Co.
Zwetsch, Heinzelmann & Co.

The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

VOL. 26. NO. 8 TULSA, OKLAHOMA, JULY 14, 1927

Copyright, 1927, by The Petroleum Publishing Co.

TABLE OF CONTENTS

SPECIAL ARTICLES

Wildcatters Active in Many Areas 27
By Andrew M. Rowley
Despite fact no relief from overproduction is in sight, new areas are being tested with good prospects.

Oil Laws Before Bar Association 29
By Charles E. Kern
Section on Mineral Law at Buffalo meeting next month to hear Secretary Work and James A. Veasey.

Co-operative Action in Menacing Pools Suggested 29
By L. M. Fanning

Will Test Glade Anticline in Colorado 30
By C. D. Lockwood
Largest structure ever mapped in that state is more than 25 miles long and 5 miles wide.

Pine Island Trinity May Be Prolific 31
By Neil Williams
Gas from Glen Rose high in gasoline content; Haynes well will stimulate deeper drilling in Northwest Louisiana.

Technical Committee Recommends Forum 31

Minor Changes in Plant Operation 32
By W. T. Ziegenhain
Crude runs to stills of Mid-Continent refiners practically same as in June. Add two new plants.

Salt Dome Theory Big Fact in Utah 33
By Special Correspondent
Tests drilled there have caused division of opinion as to value of further operations. One group plans new work.

Roxana's Deep Well Has Unique Record 34
By J. L. Dwyer
Drilled to total depth of 5,989 feet without a fishing job. Has string of 5-inch casing 5,764 feet long.

Col. Lindbergh Urged to Visit Exposition 34

Answering Borah (Editorial) 36

Oils Show Effect of Crude Production 135
Generally sluggish during past week with only a few securities showing resistance to heavy trading.

Work Progressing on Gas Pipe Lines 140
By James H. Dameron

FIELD OPERATIONS

North Central and West Texas 38
By C. D. Lockwood

Late Field News 39

Texas Panhandle 40
By James H. Dameron

Oklahoma 42
By J. L. Dwyer

Kansas 44
By J. L. Dwyer

North Louisiana-Arkansas 46
By Neil Williams

Southwest Texas 49
By B. D. Stevenson

Gulf Coast 51
By P. L. McGreal

Canada 53
By Victor Lauriston

Rocky Mountain Area 53
By Frank B. Taylor

California 55
By L. P. Stockman

East Central Texas 56
By Special Correspondent

Pennsylvania-West Virginia 60
By D. S. Wakenight

Michigan 60
By Whit

Ohio-Indiana-Illinois 63
By Whit

Kentucky-Tennessee 63
By Whit

Map of Church Fields and McIlroy Pool 73

New Locations in West Texas 156

REFINING AND MARKETING

Oklahoma Gasoline Prices Steady 28
By C. O. Willson
Refiners able to maintain 7 cent market for U. S. Motor gasoline. Minor advances in higher gravities.

Tank Wagon Prices Show Slight Advance 101

Strong Gasoline Market in Chicago 128
By J. B. Waldo

Gasoline Weaker on Atlantic Coast 129
By N. O. Fanning

Refining of Ventura Avenue Crude 130
By Gustav Egloff and Jacque C. Morrell
Possible gasoline yield of 68.6 per cent from combined topping and cracking operation. Treating methods.

Refining and Marketing News 132

Plant Operators' Page 134

Refinery and Crude Prices 136-137

Tank Wagon Quotations 138

Technical Questions Answered 146
By Dr. C. K. Francis

Of Interest to Sales Departments 148

ARTICLES OF GENERAL INTEREST

Advertisers' Index 25

Men Known in Oildom and Personals 64

Equipment and Supplies 68

Natural Gas Developments 70

Steel Mills Run 70 Per Cent 76
By B. E. V. Luty

Creosoted Pine Poles in Oil Fields 97
By F. E. Boehne

Classified Wants 126-127

Determine Specific Gravity of Gas 150
By E. L. Rawlins
Explain importance in measurement of gas volume. Describe several methods of field measure.

Recent Patents 160

Crude Petroleum Statistics 184

BE A REGULAR READER

The OIL and GAS JOURNAL Tulsa, Okla.

You are hereby directed to mail The Oil and Gas Journal to me for.....year. Enclosed find remittance $.....

Classify my interests as checked by me.

.....Producing .....Refining
.....Equipment .....Marketing

Name .....
Address .....
City .....

$6 a Year
$3 6 Months

Refinery Section Starts on Page 128

Wildcatters Active in Many Areas

Highest daily average estimated production in 1926, week ended Dec. 25, 2,385,139 bbls. Lowest in 1926, January 30, 1,915,960 bbls.

Despite Fact No Relief From Overproduction Is in Sight, New Areas Are Being Tested With Good Prospects

By Andrew M. Rowley

Highest daily average estimated light oil production in 1926, week ended Dec. 25, 1,797,349 bbls. Lowest in 1926, Jan. 30, 1,371,600 bbls.

With the Seminole area in Oklahoma producing 456,000 barrels on Tuesday of this week; a completion in Upton County, Texas, starting at 300 barrels an hour; a new deep sand discovered in the Big Muddy Pool in Wyoming; and wildcatters in widely scattered areas throughout the country becoming more busy than usual, with good prospects of bringing in more flush production, the crude oil situation holds very little prospect of any improvement for months to come. It seems probable at this time the greater Seminole area may reach a production of 500,000 barrels daily and that the output of that area at the end of this year will be close to 300,000 barrels a day.

Pipe line facilities are being extended rapidly in active areas of the country, especially through West Texas, and it is only the lack of such facilities which is holding down production in a number of places. Consequently, the decline in production registered last week is of slight importance. The output of wells pinched in waiting for storage and pipe lines would be sufficient to offset natural declines in other fields. California continues to curtail its output but wildcatters there are active and have good prospects of opening new producing horizons. In fact, activity being shown at this time in sections far removed from present production is one of the peculiar angles of the situation.

Another important factor in the general situation is the fact numerous acreage deals have been made in active territory and most of these carry obligations on the part of the buyer to drill. As such acreage usually is in proven or semiproven territory, the outcome of such agreements generally means more flush production.

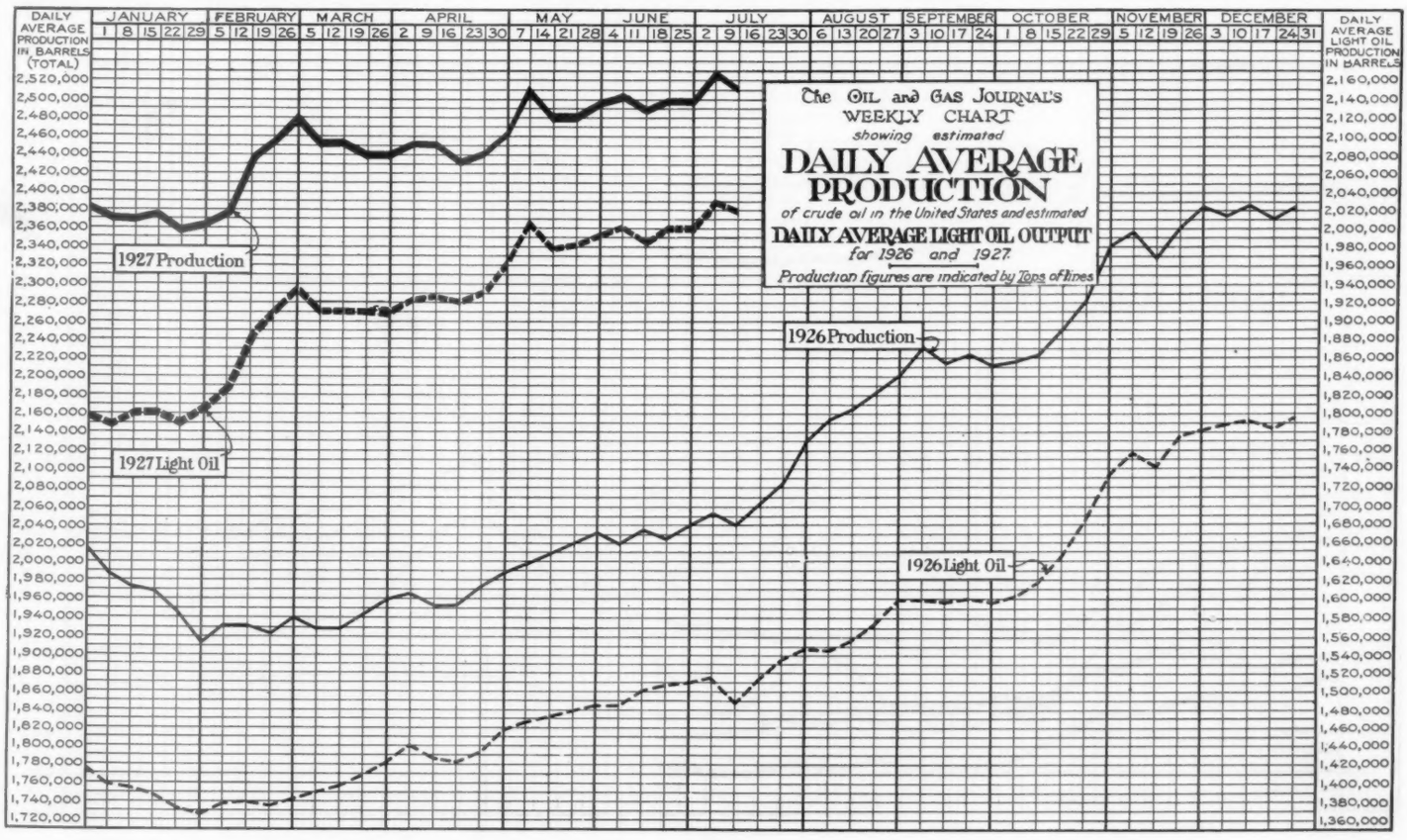
There seems little doubt at this time the industry will enter the winter period with a crude production in excess of demands, resulting in further additions to stocks.

PRODUCTION IN THE UNITED STATES

Estimated daily average production of light and heavy gravity oil in the United States for week ended July 9, and a comparison with the previous week follows:

	July 9		July 2	
Oklahoma—	Light	Heavy	Light	Heavy
Tonkawa	21,020	.....	21,835	.....
Burbank	40,785	.....	42,010	.....
Other Osage Fields	30,715	.....	31,170	.....
Cushing and Shamrock	21,465	.....	21,415	.....
Bristow and Eastern Bristow	26,270	.....	26,280	.....
Cromwell	12,840	.....	13,310	.....
Garber	12,805	.....	13,415	.....
Blackwell-Braman	10,315	.....	10,890	.....
Seminole	435,895	.....	422,910	.....
Wewoka	19,505	.....	18,740	.....
Northern Miscellaneous	113,620	.....	113,380	.....
Southern Fields	67,085	.....	67,115	.....
Total Oklahoma	812,320	.....	802,470	.....
North Louisiana	46,115	9,000	41,375	8,835
Arkansas	23,920	87,340	23,960	88,000
North Central Texas	154,550	.....	159,370	.....
West Texas	123,861	.....	127,658	.....
Texas Panhandle	116,255	.....	119,040	.....
East Central Texas	33,797	.....	34,362	.....
Kansas	108,710	.....	110,515	.....
Total Mid-Continent area	1,419,528	96,340	1,418,750	96,835
Gulf Coast	.....	148,840	.....	153,205
Southwest Texas	.....	32,650	.....	33,530
Eastern	111,500	.....	111,500	.....
Rocky Mountain Area	84,194	.....	86,280	.....
California—				
Santa Fe Springs	41,000	.....	41,500	.....
Long Beach	91,000	.....	93,000	.....
Torrance	6,000	17,000	6,000	17,500
Huntington Beach	73,000	.....	74,000	.....
Dominguez	15,000	.....	16,000	.....
Rosecrans	9,000	.....	9,250	.....
Inglewood	21,000	13,000	22,000	13,000
Ventura Avenue	37,000	.....	37,500	.....
Seal Beach	60,000	.....	60,000	.....
Remainder of State	54,000	186,000	55,000	186,000
Total California	407,000	216,000	414,250	216,500
Total United States	2,022,222	493,830	2,030,780	500,070
Grand Total		2,516,052		2,530,850

→ **Total Decrease, 14,798 Bbls.; Light Oil Decrease, 8,558 Bbls.** ←



The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

VOL. 26. NO. 8 TULSA, OKLAHOMA, JULY 14, 1927

Copyright, 1927, by The Petroleum Publishing Co.

TABLE OF CONTENTS

SPECIAL ARTICLES

Wildcatters Active in Many Areas 27
By Andrew M. Rowley
Despite fact no relief from overproduction is in sight, new areas are being tested with good prospects.

Oil Laws Before Bar Association 29
By Charles E. Kern
Section on Mineral Law at Buffalo meeting next month to hear Secretary Work and James A. Veasey.

Co-operative Action in Menacing Pools Suggested 29
By L. M. Fanning

Will Test Glade Anticline in Colorado 30
By C. D. Lockwood
Largest structure ever mapped in that state is more than 25 miles long and 5 miles wide.

Pine Island Trinity May Be Prolific 31
By Neil Williams
Gas from Glen Rose high in gasoline content; Haynes well will stimulate deeper drilling in Northwest Louisiana.

Technical Committee Recommends Forum 31

Minor Changes in Plant Operation 32
By W. T. Ziegenhain
Crude runs to stills of Mid-Continent refiners practically same as in June. Add two new plants.

Salt Dome Theory Big Fact in Utah 33
By Special Correspondent
Tests drilled there have caused division of opinion as to value of further operations. One group plans new work.

Roxana's Deep Well Has Unique Record 34
By J. L. Dwyer
Drilled to total depth of 5,989 feet without a fishing job. Has string of 5-inch casing 5,764 feet long.

Col. Lindbergh Urged to Visit Exposition 34

Answering Borah (Editorial) 36

Oils Show Effect of Crude Production 135
Generally sluggish during past week with only a few securities showing resistance to heavy trading.

Work Progressing on Gas Pipe Lines 140
By James H. Dameron

FIELD OPERATIONS

North Central and West Texas 38
By C. D. Lockwood

Late Field News 39

Texas Panhandle 40
By James H. Dameron

Oklahoma 42
By J. L. Dwyer

Kansas 44
By J. L. Dwyer

North Louisiana-Arkansas 46
By Neil Williams

Southwest Texas 49
By B. D. Stevenson

Gulf Coast 51
By P. L. McGreal

Canada 53
By Victor Lauriston

Rocky Mountain Area 53
By Frank B. Taylor

California 55
By L. P. Stockman

East Central Texas 56
By Special Correspondent

Pennsylvania-West Virginia 60
By D. S. Wakenight

Michigan 60
By Whit

Ohio-Indiana-Illinois 63
By Whit

Kentucky-Tennessee 63
By Whit

Map of Church Fields and McIlroy Pool 73

New Locations in West Texas 156

REFINING AND MARKETING

Oklahoma Gasoline Prices Steady 28
By C. O. Willson
Refiners able to maintain 7 cent market for U. S. Motor gasoline. Minor advances in higher gravities.

Tank Wagon Prices Show Slight Advance 101

Strong Gasoline Market in Chicago 128
By J. B. Waldo

Gasoline Weaker on Atlantic Coast 129
By N. O. Fanning

Refining of Ventura Avenue Crude 130
By Gustav Egloff and Jacque C. Morrell
Possible gasoline yield of 68.6 per cent from combined topping and cracking operation. Treating methods.

Refining and Marketing News 132

Plant Operators' Page 134

Refinery and Crude Prices 136-137

Tank Wagon Quotations 138

Technical Questions Answered 146
By Dr. C. K. Francis

Of Interest to Sales Departments 148

ARTICLES OF GENERAL INTEREST

Advertisers' Index 25

Men Known in Oildom and Personals 64

Equipment and Supplies 68

Natural Gas Developments 70

Steel Mills Run 70 Per Cent 76
By B. E. V. Luty

Creosoted Pine Poles in Oil Fields 97
By F. E. Boehne

Classified Wants 126-127

Determine Specific Gravity of Gas 150
By E. L. Rawlins
Explain importance in measurement of gas volume. Describe several methods of field measure.

Recent Patents 160

Crude Petroleum Statistics 184

BE A REGULAR READER

The OIL and GAS JOURNAL Tulsa, Okla.

You are hereby directed to mail The Oil and Gas Journal to me for.....year. Enclosed find remittance $.....

Classify my interests as checked by me.

.....Producing .....Refining
.....Equipment .....Marketing

Name .....
Address .....
City .....

$6 a Year
$3 6 Months

Refinery Section Starts on Page 128

Wildcatters Active in Many Areas

Highest daily average estimated production in 1926, week ended Dec. 25, 2,385,139 bbls. Lowest in 1926, January 30, 1,915,960 bbls.

Despite Fact No Relief From Overproduction Is in Sight, New Areas Are Being Tested With Good Prospects

By Andrew M. Rowley

Highest daily average estimated light oil production in 1926, week ended Dec. 25, 1,797,349 bbls. Lowest in 1926, Jan. 30, 1,371,600 bbls.

With the Seminole area in Oklahoma producing 456,000 barrels on Tuesday of this week; a completion in Upton County, Texas, starting at 300 barrels an hour; a new deep sand discovered in the Big Muddy Pool in Wyoming; and wildcatters in widely scattered areas throughout the country becoming more busy than usual, with good prospects of bringing in more flush production, the crude oil situation holds very little prospect of any improvement for months to come. It seems probable at this time the greater Seminole area may reach a production of 500,000 barrels daily and that the output of that area at the end of this year will be close to 300,000 barrels a day.

Pipe line facilities are being extended rapidly in active areas of the country, especially through West Texas, and it is only the lack of such facilities which is holding down production in a number of places. Consequently, the decline in production registered last week is of slight importance. The output of wells pinched in waiting for storage and pipe lines would be sufficient to offset natural declines in other fields. California continues to curtail its output but wildcatters there are active and have good prospects of opening new producing horizons. In fact, activity being shown at this time in sections far removed from present production is one of the peculiar angles of the situation.

Another important factor in the general situation is the fact numerous acreage deals have been made in active territory and most of these carry obligations on the part of the buyer to drill. As such acreage usually is in proven or semiproven territory, the outcome of such agreements generally means more flush production.

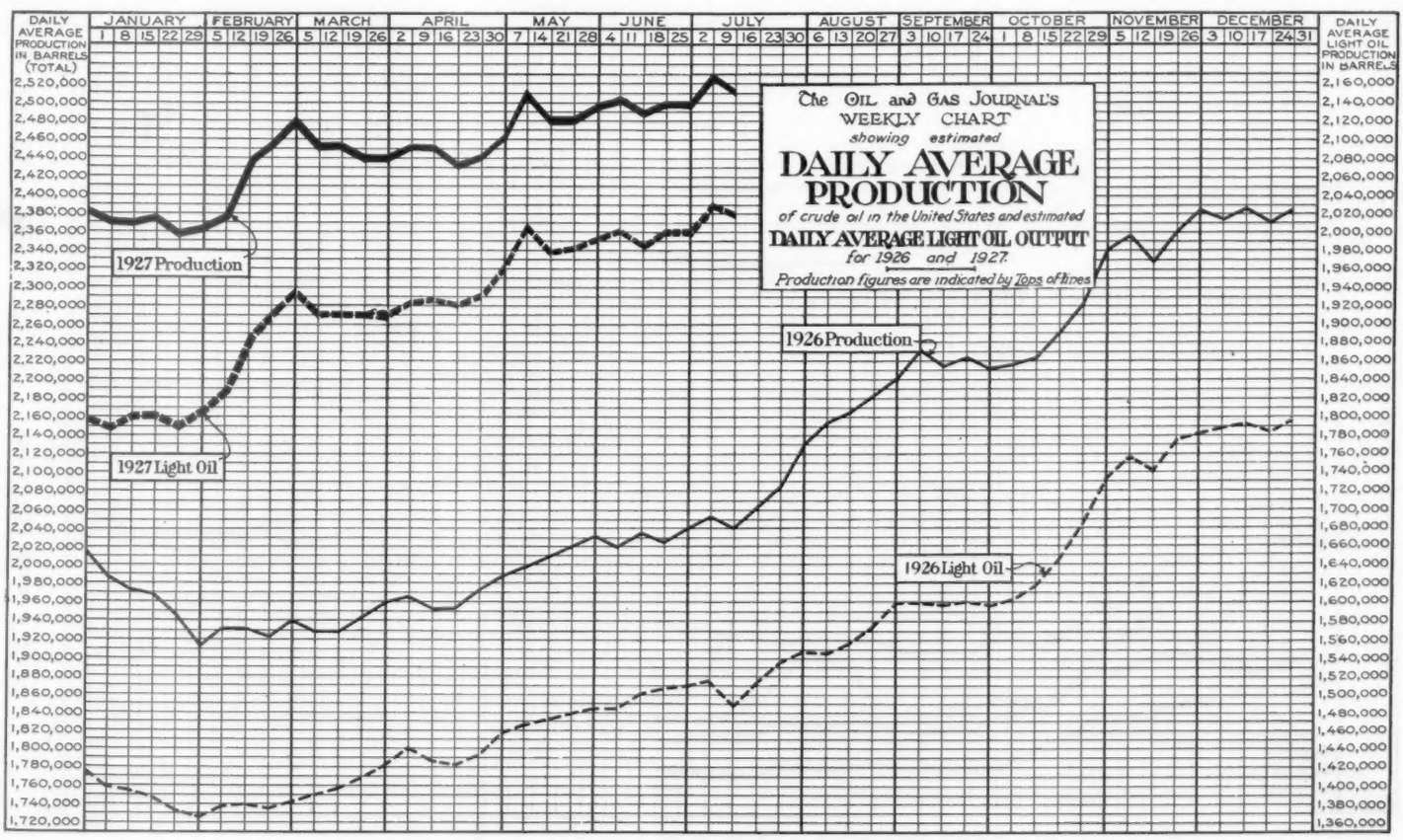
There seems little doubt at this time the industry will enter the winter period with a crude production in excess of demands, resulting in further additions to stocks.

PRODUCTION IN THE UNITED STATES

Estimated daily average production of light and heavy gravity oil in the United States for week ended July 9, and a comparison with the previous week follows:

	July 9		July 2	
Oklahoma—	Light	Heavy	Light	Heavy
Tonkawa	21,020	.....	21,835	.....
Burbank	40,785	.....	42,010	.....
Other Osage Fields	30,715	.....	31,170	.....
Cushing and Shamrock	21,465	.....	21,415	.....
Bristow and Eastern Bristow	26,270	.....	26,280	.....
Cromwell	12,840	.....	13,310	.....
Garber	12,805	.....	13,415	.....
Blackwell-Braman	10,315	.....	10,890	.....
Seminole	435,895	.....	422,910	.....
Wewoka	19,505	.....	18,740	.....
Northern Miscellaneous	113,620	.....	113,380	.....
Southern Fields	67,085	.....	67,115	.....
Total Oklahoma	812,320	.....	802,470	.....
North Louisiana	46,115	9,000	41,375	8,835
Arkansas	23,920	87,340	23,960	88,000
North Central Texas	154,550	.....	159,370	.....
West Texas	123,861	.....	127,658	.....
Texas Panhandle	116,255	.....	119,040	.....
East Central Texas	33,797	.....	34,362	.....
Kansas	108,710	.....	110,515	.....
Total Mid-Continent area	1,419,528	96,340	1,418,750	96,835
Gulf Coast	.....	148,840	.....	153,205
Southwest Texas	.....	32,650	.....	33,530
Eastern	111,500	.....	111,500	.....
Rocky Mountain Area	84,194	.....	86,280	.....
California—				
Santa Fe Springs	41,000	.....	41,500	.....
Long Beach	91,000	.....	93,000	.....
Torrance	6,000	17,000	6,000	17,500
Huntington Beach	73,000	.....	74,000	.....
Dominguez	15,000	.....	16,000	.....
Rosecrans	9,000	.....	9,250	.....
Inglewood	21,000	13,000	22,000	13,000
Ventura Avenue	37,000	.....	37,500	.....
Seal Beach	60,000	.....	60,000	.....
Remainder of State	54,000	186,000	55,000	186,000
Total California	407,000	216,000	414,250	216,500
Total United States	2,022,222	493,830	2,030,780	500,070
Grand Total		2,516,052		2,530,850

→ **Total Decrease, 14,798 Bbls.; Light Oil Decrease, 8,558 Bbls.** ←



Oklahoma Gasoline Prices Steady

Refiners Maintain 7-Cent Market for U. S. Motor Gasoline. Minor Advances in Higher Gravities. Gas Oils Higher

By C. O. Willson

A 7-cent market for 58-60 U. S. Motor gasoline was definitely established in Oklahoma (Group 3) during the past week. This is the highest price for that grade since the middle of March. The movement for a 7-cent market was started the first of the month when several of the larger companies advanced their quotations one-quarter cent. Other refiners have slowly met the advance so that the first of this week there was practically no material available under that quotation.

There is still some U. S. Motor gasoline sold last month coming from Oklahoma refineries available from marketers under 7 cents, although it was apparent that the bulk of this material had already been absorbed. Refiners on Monday and Tuesday reported a "fair" to "excellent" movement of gasoline at the new price. One of the largest refiners in the state said his company's July demand at 7 cents was much better than the June demand at 6⅝ and 6¾ cents.

Although the interest of the Oklahoma refiners centers on the 58-60 U. S. Motor grade, minor advances in some of the lower and higher gravity gasolines became generally effective during the week. However, as will be seen from a study of the price tables in this issue, the sellers have not been able to advance their higher gravity gasolines in line with the increase in U. S. Motor. Although many refiners were asking for a greater differential, 60-62 400 endpoint gasoline sold as low as 7⅛ cents and 64-66 375 for domestic shipment sold at 7¼ cents.

REFINED MARKET BAROMETER

Continued weakness in the eastern refinery areas with a trend toward higher prices at Middle West and Mid-Continent refining centers again summarizes the gasoline market trend during the past week. The domestic gasoline market was firm on the West Coast. The weakness along the Atlantic seaboard is due to the fact that the refiners are offering their gasoline freely in an effort to reduce their stocks which are augmented by the continued heavy receipts of California gasoline. Price cutting in the retail market of New York City and other points reflects the weakness in the refinery gasoline market. At interior points a determined effort is being made by refiners to maintain a July gasoline price higher than that of June. Reports show a heavy gasoline consumption in all parts of the country. The division in the fuel oil and gas oil market is practically the same as that of gasoline. The large offerings along the East Coast point to lower prices, while prices are steady in other parts of the country. Kerosene is dull, and activity in distillates is largely confined to contract purchases. Natural gasoline prices were lowered during the week on the West Coast with no changes in the Mid-Continent market. The occasional changes made in lubricating oils are generally downward. Wax and petrolatum prices were firm during the week.

Mid-Continent—General higher gasoline prices except in North Texas. Natural gasolines unchanged. Kerosene and distillates dull. Fuel and gas oils weak in Kansas with no changes in other sections. No change in lubs and wax.

Atlantic Seaboard—Gasolines weak despite heavy consumption. Kerosene weak. Heavy offerings weaken fuel oil and gas oil. Lubs quiet. Paraffin wax firm. Petrolatum active.

Chicago—Gasolines firm although demand not particularly active. Kerosene weak. Fuel oils steady. Distillate and gas oil unchanged.

Pennsylvania—No price changes. Good movement of gasoline with excellent demand for neutrals.

California—Natural gasolines lower. Refinery gasolines firm. Large fuel oil contract placed by Navy at low flat price.

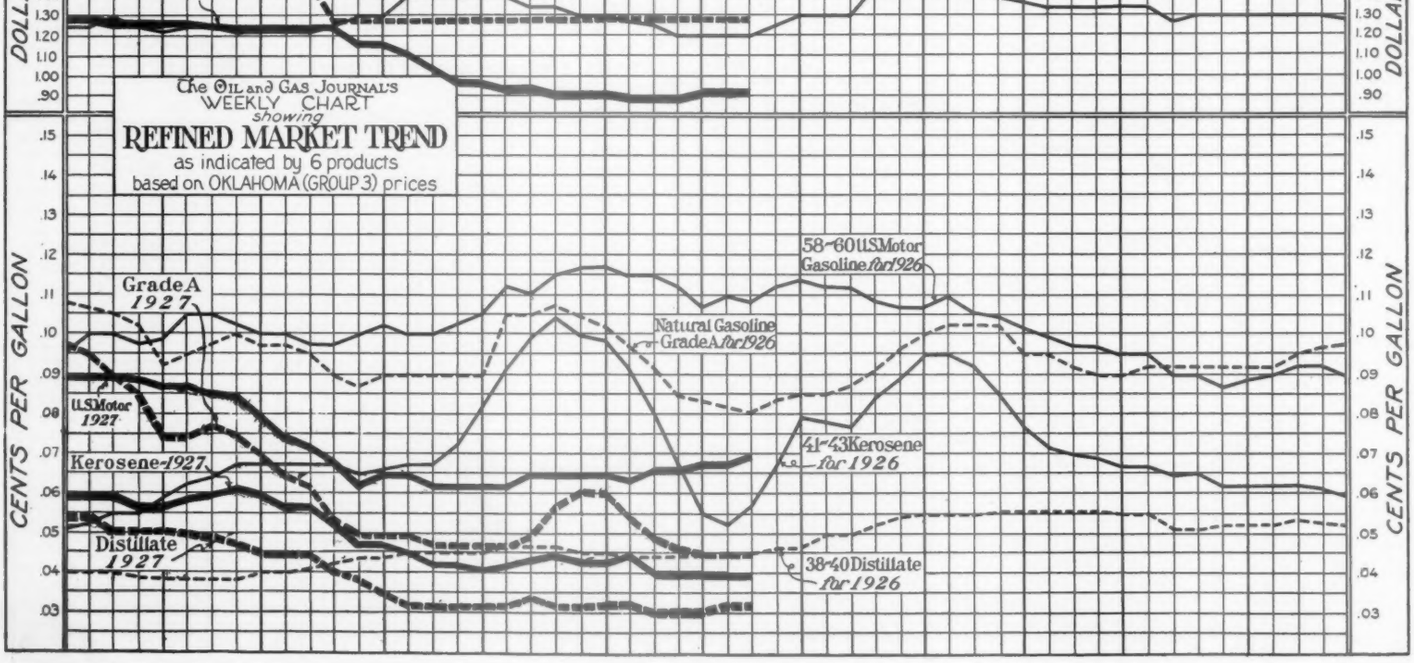
The demand for the higher gravity gasolines is not as active as it was earlier in the year despite the very narrow price differential. This is explained as being due to the arrival of summer weather. Many jobbers believe that the 58-60 or 56-58 437 endpoint gasoline is a better summer motor fuel oil than the higher gravities and would buy the low gravity material even if all grades were quoted at the same price.

Unusual Situation

The continued strength shown in the Oklahoma gasoline market has been a surprise to many. When the advance was first made it was predicted that it would end shortly due to the fact that refiners outside the state would not give the necessary support by advancing their quotations. In the Mid-Continent this development has actually materialized in the case of North Texas refiners. Kansas, Arkansas and North Louisiana refiners in most instances have advanced their prices in line with Oklahoma.

With a dearth of export business, however, North Texas refiners have found it necessary to offer special price inducements on domestic shipments to keep their gasoline moving. Although they have a one-eighth cent freight differential to absorb in their shipments to most consuming points in the Middle West, gasoline of all grades has been available from North Texas refiners one-eighth to three-eighths cents under the Oklahoma market. These lower prices have naturally attracted considerable business which is usually placed with Oklahoma refiners. Reports from the North Texas area the first of the week indicated that this increase in business might bring a general advance in prices before the end of the week so that the normal price relationships between that section and other groups of the Mid-Continent would again

(Continued on Page 145)



Oil Laws Before Bar Association

Section on Mineral Law at Buffalo Meeting Next Month to Hear Secretary Work and Judge James A. Veasey

By Charles E. Kern

Member Section of Mineral Law, The American Bar Association

WASHINGTON, D. C., July 11.—The problem of overproduction that has long harassed the oil industry is to be brought within the purview of the American Bar Association.

To those unacquainted with the scope of the activities of this national association, with a membership of about 25,000 of the leading lawyers of the United States, this movement may be regarded as an innovation. However, that is not a fact. The functions of the American Bar Association that are to be brought into operation to assist the oil industry are very similar to those that have been utilized for other problems of the Nation which are of such a nature as to make desirable the offering of counsel on the part of men versed in the law and also who have had commercial and industrial experience and whose good offices could be used to advantage because they are not intimately associated with any selfish interest.

Difficult Question

It has been realized from public discussion that the problem of overproduction is a difficult one for the industry itself to solve because of conflicting interests and one in which the Nation at large, or the public, is deeply interested but also lacking expert knowledge to bring about the solution of the problem of dealing with wasteful production of a natural resource. Even legislative efforts to correct the evils of overproduction of petroleum are looked upon as possible only when expert advice is available, both in respect to the legality of the measures to be adopted and the business and technical problems involved in the business.

So it is that some men who have been silent witnesses of the events of the past three years, during which the President's Federal Oil Conservation Board has attempted to co-operate with the oil industry itself, have been led to believe in the propriety and possible helpfulness that may be rendered the industry and the consumers of the products of petroleum in an advisory way by the American Bar Association.

This view has been taken with especial reference to the fact that every proposition that has been suggested for the economic control of the oil industry, without hampering that industry with unbusinesslike restrictions, is at once confronted with the legal difficulties involved in a possible violation of the Antitrust Law.

New Section Formed

At the annual meeting of the American Bar Association last year in Denver, Colo., a new section was formed known as the Section of Mineral Law, which is interested primarily at the present time in the oil situation because of the economic problems presented in respect to that industry. Arrangements have been made for a meeting of this section at Buffalo, N. Y., August 30, the day preceding the assembling of the annual meeting of the American Bar Association itself, and at that meeting papers will be read by Secretary Hubert Work of the Department of the Interior and chairman of the President's Federal Oil Conservation Board, on the subject, "Conservation of Oil"; by James A. Veasey, general counsel of the Carter Oil Co., of Tulsa, Okla., nonresident lecturer on oil and gas at the University of Michigan, on the subject of "Legislative Control of the Business of Producing Oil and Gas." A third paper will be presented, the title and author of which will be announced later.

These three speakers who will present papers on that occasion are nationally known as being men whose views cannot fail to carry great weight, not only with the public at large but with the oil industry itself.

Officers of Section

The section of Mineral Law of the Bar Association is composed of lawyers primarily interested in the production of oil, coal and other minerals and consists of approximately 285 lawyers at the present time. The officers of the section of Mineral Law follow: John C. Townes, Humble Oil & Refining Co., Houston, Tex., chairman; Gurney E. Newlin, 935 Title Insurance Building, Los Angeles, Calif., vice chairman; Peter Q. Nyce, Albee Building, Washington, D. C., secretary; and W. H. Francis, Box 1667, Dallas, Tex., treasurer.

It is the desire of those in charge of this movement that every lawyer eligible for membership shall make application either at once or immediately after he arrives at Buffalo, August 30, for membership in this section so that he may be present during the proceedings, hear the reading of the important papers to be submitted and join in the discussion that doubtless will follow.

To be a member of this section one must be a member of the American Bar Association and must request membership, which will entitle him to receive all notices, information, etc., that may be available for the membership and which will be forwarded to him promptly.

"The purpose for which this section of Mineral Law was organized," said Peter Q. Nyce, of the law firm of Long, Chamberlain & Nyce, of Washington, D. C., secretary of the section, "has long been recognized. It is to have some place in which there could be a forum for expression by American lawyers interested in the law which affects coal, oil, gas and mining generally so that they could discuss the principles of the law, consider the conflict of decisions of the appellate courts of the various states and assist in forming a rational application of the law to the industrial problems affecting these branches of business.

Forum for Discussion

"It has been recognized that there should be a forum where these discussions could be held, not only from the standpoint of the producer but from the standpoint of the landowner and the Nation generally, because the public is really the chief element of interest in every industrial operation.

"The President has appointed the Federal Oil Conservation Board to study problems of conservation and has appointed as its membership four of his Cabinet officers, and the section of Mineral Law will seek to be helpful in any way it has in its power to assist this commission in its great work of promoting conservation.

"The section of Mineral Law wishes to be in a position to give advice particularly with respect to legislation, if legislation is attempted either by the National Congress or by state legislatures. The section of Mineral Law will be especially adapted to do this because of the higher character that has been maintained by the American Bar Association which has placed it above partisanship and has made its professional advice superior to and not subservient to any selfish interest."

The American Bar Association has rendered the same sort of assistance to other industries that it is now proposing it shall offer in the interests of the country at large for a rational method of controlling wasteful oil production. It has come to be a recognized procedure for Congress to call for the advice of the American Bar Association in the enactment of judicial legislation and it is regarded as a settled principle that the judicial code must have the approval of the American Bar Association before it gets the approval of Congress or of the President of the United States. It will be recalled that the American Bar Association sponsored the project for the realignment of judicial salaries for United States judges all over the United States. The last judiciary code was adopted only after thoughtful consideration and well-matured advice given by this association.

Like Railroad Section

This same method of dealing with the minerals or natural resources has been adopted by the American Bar Association in the appointment of its section on Railroads and on Public Utilities. The railroad section now numbers more than 250 railroad attorneys who consider and offer suggestions and advice for legislation on matters of transportation that are intimately associated with enforcement of the law and for which they are peculiarly qualified.

Of course the outcome of this meeting of this section of the American Bar Association in Buffalo, August 30, is problematical. All general questions in relation to conservation will be discussed but whether or not it will be possible for anyone to bring forward any specific plan for meeting the present problems of overproduction of oil is to be seen. Whatever may be its outcome it seems certain that the solution of this problem will be advanced beyond the point which has been reached up to this time.

Every attorney who is a member of the American Bar Association who is interested, either for oil companies or for the consumers of petroleum and its products, should make it his business to join this section and lend his advice and influence for the success of this effort of leading lawyers of the United States to solve what is regarded as perhaps the greatest industrial problem bearing upon power and fuel facilities by the country at large.

If all such members of the association will promptly write to Peter Q. Nyce, Albee Building, Washington, D. C., secretary of the Section of Mineral Law, American Bar Association, and ask to be registered as a member of this section they will be placed in a position to take an active part in whatever is done.

CO-OPERATIVE ACTION IN MENACING POOLS SUGGESTED FOR INDUSTRY

By L. M. Fanning

New York Bureau, The Oil and Gas Journal, Room 629, No. 101 Park Avenue, New York, N. Y.

NEW YORK, July 11.—There are no immediate prospects of further conferences among oil operators looking to the curtailment of production in flush pools or in threatening flush producing territories. Information available in New York points to a continued concern regarding the future production situation without, however, any steps being taken to inaugurate relief measures in advance of the developments which may cause continued embarrassment.

There is considerable sentiment in favor of the working out of a practical program of co-operation to meet whatever situation arises, but, for the present at least, there is no active action being taken by oil company executives individually or as directors of the American Petroleum Institute in that direction.

While this at the moment might indicate a slowing up of the co-operative idea, first broadly applied in the Seminole area, the reverse is true. There is more interest in co-operation in the petroleum industry than ever before and in certain connections the industry has demonstrated a more prolonged interest than it ever has since it got together during the war under the direction of the National Petroleum War Service Committee.

Like any new and fundamentally important idea, that of co-operation in the oil industry goes forward slowly in asserting itself. That it has taken hold is demonstrated. During the overproduction period of 1923 and 1924 there was a great deal of talk about co-operation but nothing was done to that end. In the present situation the necessity for co-operation became even more pronounced and the Seminole conferences were largely the result of the awakened sentiment in the industry that something beside talk had to be done in that direction.

Movement Cannot Stop

It is clearly appreciated among a good part of the industry now that the movement cannot stop at this point. In fact, it has yet to be demonstrated that the Seminole agreement in practical application will result in relieving the situation to an extent great enough to preclude curtailment action in other districts. Moreover, it was recognized in the working out of the Seminole agreement that such action was not necessarily to be confined to one district which, although the most important flush production area, is not solely responsible for the overproduction situation.

The signatories to the Seminole plan agreed to extend the principle of co-operative curtailment to other areas in which they operate in the State of Oklahoma. It is assumed that the various producing units also understood that the principle would be adopted if necessary in Texas and other producing states.

In other words, Seminole is just a beginning. The actual measures toward co-operation taken concern only a small proportion of the various units that make up the producing end of the business. The real importance of the Seminole agreement is that it is the first practical application of the principle of co-operation joined in by important units of the business. It is obvious, however, that unless something is done or the machinery provided for the extension of the principle in other pools or threatening areas, the practical value of co-operation as applied to the present situation is nullified.

Form Local Committees

Under the circumstances the suggestion is made that the producers in such territories should form committees and as the necessity arises confer with the Federal Oil Conservation Board and adopt such plans as they deem advisable. In some cases the committees would be organized but might not necessarily have to go forward with any plan, depending upon the specific situation. But by such action the industry would demonstrate its willingness to relieve an uneconomic situation by voluntary co-operation and would be conforming to the principles

(Continued on Page 120)

Will Test Glade Anticline, Colorado

Largest Structure Ever Mapped in State Is More Than 25 Miles Long and 5 Miles Wide. Location Hard to Reach

By C. D. Lockwood

FORT WORTH, Tex., July 11.—During the present period of overproduction of crude oil, with leaders of the industry commenting resignedly that it seems one can drill a well almost anywhere and find petroleum, an unusual wildcat test in Dolores County of southwestern Colorado deserves a little more than ordinary attention.

The principal reason for this is the fact that it is located on one of the largest structures ever mapped in Colorado and perhaps in the whole Rocky Mountain region, anticline with 1,700 feet of northeast reversal as mapped on the Dakota sandstone at the surface and embracing an area more than 25 miles in length and more than 5 miles wide within the closing contour. This enormous structure is known as the Glade Anticline extending southeast and northwest all the way across Dolores County and down into Montezuma County on the south. It was mapped last year for the Transcontinental Oil Co. by Coe S. Mills, working under the direction of Ray V. Hennen, chief geologist of the company, and was checked by R. J. Metcalf, chief of the Fort Worth Division, who has charge of the Colorado territory.

Test Near Apex of Structure

The Glade Anticline is a continuation of a much smaller structure called the Dolores Anticline, most of which lies in San Miguel County and which is well known, having been mapped by the Government and several others. Both are local closed structures along a general line of folding which continues northwest into Utah. It is along this and other lines of folding having the same trend in southwestern Colorado and southeastern Utah that several large companies are devoting considerable attention.

The test well is being drilled by the Moody Oil Corp. of Fort Worth, Tex., with the Transcontinental Oil Co. retaining a part interest in the permit on which it is located and other acreage. The site of the test is in Section 30-41n-16w, near the apex of the structure and in the floor of Glade Canyon where about 250 feet less drilling is required than at other points on the anticline. The location is on the level floor of the canyon, affording ideal operating conditions. The bit will start in the McElmo formation, about 200 feet below the Dakota, and will have for its objective the Hermosa formation of Pennsylvanian age. The location of this wildcat is about 20 miles from the Utah line and about 50 miles north of the New Mexico boundary. A road has been built at a cost of approximately $5,000, a camp is being constructed and some of the materials are being hauled in. It is expected that drilling will start by the first of August.

The best equipment obtainable is being used and preparations are being made to go as deep as necessary. The 12-inch pipe is to be set as deep as possible, although Mr. Mills has estimated, after careful correlation and study, that the top of the Hermosa will be reached at approximately 2,800 feet and the oil, if any, is expected to be found in the upper 800 to 900 feet of this formation which has been found sandy and petroliferous in all places where it has been penetrated in this region.

Regarding the Hermosa formation, Whitman Cross in the U. S. G. S. Folio on the Rico area says that "Lithologically, the Hermosa is composed of limestone, shale and sandstone but all of these strata are more or less calcareous throughout. The limestones are of blue-gray color, rather dense in texture and usually very fossiliferous. They are frequently more of less bituminous, sometimes so much so as to afford a distinct odor when struck with a hammer. The shales vary from a black bituminous clay shale, rather fissile, to sandy shale and sandstone of olive green color. The sandstones are also of a greenish color and under the microscope are seen to have an amorphous green cement. The sandstones are composed mainly of quartz, but felspar and mica are common. The cementing material is largely calcite. Sandy beds vary from fine to coarse and some are conglomeratic."

Mr. Cross also states that "grits and sandstones in massive beds predominate in the middle and upper parts of the section."

Geological Conditions

Summing up the geological conditions which he regards as extremely favorable for the accumulation of oil on this structure, Mr. Mills says:

"Considered from a regional standpoint, this anticline is located in an area where drilling to the top of the Hermosa would be moderate as compared with similar structures just to the southwest; it is located in an area where there is no intense faulting and folding as compared with similar structures to the north; and it is located in an area where the unconformity between the Permian and Pennsylvanian is probably much less than it is farther north. The sections of the Hermosa in this region show it to be petroliferous and all the tests that I know of, namely, the Midwest No. 1 Shaffer on the Cane Creek Dome, in eastern Utah, the Midwest McElmo well drilled in McElmo Canyon, southwestern Colorado, the Big Six well at Moab, Utah, and the two Cinco-Menas wells drilled north of this area in Paradox Valley, that have penetrated the Pennsylvanian formation in this region have found more or less gas and oil.

"Theoretically, this area has had sufficient igneous activity and folding to form oil, and has an enormous drainage area.

"It is also assumed that there is more closure in the underlying beds than in indicated on the surface as R. C. Coffin in Bulletin No. 16 of the Colorado Geological Survey, and Lee and Boyer in a United States Geological Survey press release of March 30, 1926, mention it is their belief that the younger rocks are less strongly folded than the underlying carboniferous beds.

Location Hard to Reach

The inaccessibility of the Glade anticline is described as one of its most unpromising features, but even at that it is more accessible than other structures which have been drilled in this general region. "At the present time," Mr. Mills' report states, "the Glade is accessible only by horseback or wagon. There are two possible routest by which it may be reached. One goes north from Dolores, the nearest railroad point, over the Dolores-Norwood state highway for a distance of 18 miles, thence west from the Willow Spring ranger station over an ungraded earth road for 5 miles, thence to the Glode over an impassable road for 18 miles. This last 18 miles is over practically level country and in Mancos shale most of the way.

"The other route goes north from Dolores over the Norwood-Dolores state highway to Disappointment Creek, thence west to a point 3 miles east of Cedar over a graded earth road, thence in a southeasterly direction to the Glade, a total distance of 67 miles. We have had a car over this route, but it is very rocky and steep, and since then have preferred to ride horseback."

Unlike numerous structures in the Rocky Mountain region, the location of the well itself is on a broad, level plateau which will afford excellent operating conditions if a field is opened up there.

Water for drilling, too, is plentiful in the Dolores River.

Practically all of this structure is situated in the Montezuma National Forest, which made it necessary to obtain permits from the Secretary of the Interior, and also places the operation more or less under government control. No company or individual can own more than one permit, which covers 2,640 acres, except under special dispensation of the Secretary of the Interior. Sufficient permit holders already contributed toward the drilling of the well to finance the initial test to a depth of 4,000 feet or more in case it is necessary to go that deep and provided granite is not encountered at a lesser depth. The symmetrical shape of the Glade and Dolores anticlines, and the fact that they occur along a general fold, precludes any serious danger of their being underlain by igneous intrusions, however, in the opinion of Mr. Metcalf. In fact, he points out, they are rather remotely removed from any surface indications of igneous intrusions.

Presence of Salt Beds

One feature of considerable interest in connection with this region is the presence of rather thick beds of salt and gypsum in addition to bituminous shales in the Hermosa formation. The presence of these salt beds, Mr. Metcalf believes, suggests a condition similar to that in West Texas, where it is becoming more and more certain that salt seas or a salt basin affords a source of oil entirely different to the usual bituminous shales. The recent oil showings in the Midwest Refining Co.'s well near Moab, Utah, have been very closely associated with these salt beds in his opinion. The Glade anticline appears to be situated near the eastern edge of a Pennsylvanian salt basin similar to the Permian salt basin of West Texas.

Although the Dolores anticline has been mapped by several geologists, as previously stated, the Glade structure has never been mapped before, so far as known. One reason for this may be the fact that it is situated in a rather inaccessible part of the forest reserve, with attendant leasing difficulties and other disadvantages. Then, too, the Dolores anticline appears to pinch out on the southern end when viewed separately, whereas there is in reality just a saddle between the two structures. The area covered by this saddle is very brushy and inaccessible, a circumstance which probably caused earlier geologists to consider further mapping to the south impractical.

Such a structure as this is considered by the transcontinental geologists a real find in this day and age when many areas have been covered "with a fine-toothed comb," as the saying goes. It may contain water or nothing at all, but from a geological standpoint at least it is a rare speciment. The structure is remarkably prominent and can be observed for a number of miles in all directions from it. The topography of the country conforms roughly to the structure as the Dakota sandstone is at, or very near, the surface from the crest to the Dove Creek syncline on the south and to the syncline in Disappointment Valley on the north, both the north and south flanks being practically dip slopes.

Due to the inaccessibility of the Glade, it can hardly be a market factor within the next year even should the initial test be successful in a large way. Forty miles of pipe line would have to be built in order to get the oil to the nearest railroad.

Finally, from a human standpoint, the Glade is an ideal place to operate, particularly in the summer months. Fishing is plentiful in the Dolores and other streams and hunting is good, too. The nights are cool and the scenery is second to none in the Rockies.

SPANISH GOVERNMENT ANNOUNCES MONOPOLY OF PETROLEUM BUSINESS

By Charles E. Kern

Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., July 11.—Of interest to the petroleum industry is the announcement of an oil monopoly by the Spanish Government, to be operated through Spanish concessionaires with the use of the distributing machinery now belonging to foreign oil companies that have been supplying the Spanish market, in conjunction with the Russian Soviet oil industry, which will provide the necessary petroleum for its operation.

Cable advices have been received that by royal decree dated June 28 the King of Spain has taken over a monopoly of the importation, refining, distribution and sale of petroleum products, declaring a prohibition, operative at once, against any extension of present installations for the handling of petroleum and its products or creating new ones.

This decree authorizes competitive bidding for the right to administer this petroleum monopoly on a commission basis, the bids to be opened two months after July 1, or September 1, 1927. This concession for administering the Spanish petroleum monopoly is to run for 20 years and to be subject to cancellation without cause. The exact meaning of this provision is not fully understood but it is presumed to give the Spanish Government the right to cancel the concession at the end of 20 years, as it is hardly conceivable that any capital could be enlisted if the Government has the right to cancel the concession at any time unless ample provision should be made for the reimbursement of investors.

Capital $21,250,000

The minimum capital to be invested by the concessionary taking over this monopoly must be 125,000,000 pesetas. The normal value of a peseta being 19.3 cents and the present exchange value being 17 cents means that the capital contemplated amounts to approximately $21,250,000.

The royal decree stipulates that this capital must be paid up plus 30 per cent founders' free shares to belong to the Government. It is stipulated that equal dividends shall be paid to all shares.

The object of this monopoly is declared to be for the purpose of increasing Government revenues and also to make Spain independent of "all foreign oil trusts," whatever that may mean.

It is further stipulated that this concession for a government monopoly of petroleum shall provide for refining all the oil contemplated to be handled by the monopoly within the boundaries of Spain, that it shall develop petroleum shale and lignite deposits which are known to be

(Continued on Page 140)

Pine Island Trinity May Be Prolific

Gas From Glen Rose High in Gasoline Content. Haynes Well to Stimulate Deeper Drilling in Northwest Louisiana

By Neil Williams

SHREVEPORT, La., July 11.—When Haynes Brothers of Shreveport a week ago brought in a high-gravity oil gusher from the Trinity horizon in the Pine Island district of the Caddo Field a vigorous incentive was given deeper drilling in north Louisiana and a new interest was enlivened in the possibilities of production in the Trinity sand, as yet unfathoned in this district.

The existence of the true Trinity sand and its depth, let alone actual production from it, has been a question open to dispute to operators and geologists in northwest Louisiana. For some reason, operators have had a hesitancy in drilling below the upper horizon of the Trinity, the Glen Rose series, which is not a sand but rather a limestone formation.

Numerous tests have been drilled into the Glen Rose formation, having been drilled in the Pine Island Field in the near vicinity of the Haynes gusher, but, to date, no test has attempted to go deeper in search of the true Trinity sand, which is expected to be a prolific source of oil supply if found to exist in this district.

The Haynes well itself is producing only from the Glen Rose formation but, the fact that it is of such size as to stimulate deeper drilling is of importance in that out of this deep drilling campaign some well may make a more thorough test and go on down in search of the expected true Trinity sand.

Awaiting a Test

As it is nothing more is known now of the Trinity in this district than was known years ago when the subject of deeper drilling first came up, and now operators are anxiously awaiting the drilling of some test to prove or disprove the existence of the true Trinity. Whether this test is a dry hole or a gusher is of little importance just so the formations are determined.

Until the past few years production in north Louisiana has been principally from the Nacatoch, Chalk Rock, Blossom and Woodbine levels but oil from these formations is being drained rapidly and new sources of supply now are the goal of the drill. In 1921, oil was discovered in the upper Glen Rose formation at a depth of 2,887 feet in the Pine Island Field, and since then this part of the Trinity horizon has been found productive of oil and gas down to 3,800 feet.

As the Glen Rose is a limestone there are drawbacks to production from this level with somewhat spotted conditions prevailing. In the Pine Island Field, the Glen Rose is especially freakish and erratic, as is the case in other producing horizons of the entire Caddo Field, this being due to fractures and other geological conditions.

Consequently it is especially desirable that an attempt be made to find the true Trinity sand, which, according to a small outcrop in southern Arkansas, should lie directly under the Glen Rose, and, according to geological observations, if having favorable structures, should be extremely prolific.

The upper part of the Glen Rose formation in the Pine Island district has yielded wells with fairly high initial production from depths ranging around 2,800 and 2,900 feet but the limestone is too compact to serve as a prolific reservoir, geologists point out. The lower part of this formation, between 3,600 and 3,800 feet, has been the source of a number of high-pressure gas wells with a number of oil wells. It is from this level that the Haynes well is producing, being brought in flowing at a rate of 12,000 bbls. daily.

Considered Favorable

According to several geologists, among whom is H. D. Easton, the Pine Island Field offers one of the most favorable spots for a test through the Glen Rose horizon to determine what lies below. This field is a pronounced structural "high" in the Caddo Field for the upper formations, and, judging from the way the horizons normally above the Glen Rose pinch out, the true Trinity sand, if in existence at all, would be even a more pronounced structure. Mr. Easton believes it to be an extremely sharp upthrust.

In the Pine Island Field, the Washita and Fredricksburg formations, normally above the Glen Rose, are entirely missing, and the Woodbine, the next highest, shows a decided thinning. This would indicate that what is the Pine Island Field was a lone island in a vast sea in the Trinity time, following which the Fredricksburg, Washita and Woodbine respectively, were laid down.

If this is true, the Pine Island Trinity sand, if it exists, is more accessible to the bit than any other place in northwest Louisiana, with the exception of one other spot which has been uncovered in the past few weeks. The latter is in the Bellevue Field where the Humble Oil & Refining Co., in conjunction with a number of other companies and interests, encountered the Glen Rose at 1,970 feet, the shallowest so far in this district.

The latter test is the No. 30 Bliss & Wetherbee, Section 15-19-11. This is one test which promises a real Trinity test. It is now down to approximately 3,000 feet. Being drilled on a co-operative basis, principally for geological knowledge, it is prepared to go an unlimited depth. With the Glen Rose at 1,970 feet, the true Trinity also should be found at a comparatively high level. Previously, other tests had picked up the upper Glen Rose in Bellevue around 2,400 to 2,600 feet but were abandoned as dry.

Upper Glen Rose

The upper Glen Rose has been reached in other districts but at much lower levels. In the Cotton Valley Field, several wells have touched it around 4,100 to 4,400 feet, turning out to be small producers of gas, rich in gasoline content. In the Sugar Creek district, southeastern Claiborne Parish, and about 20 to 25 miles southeast of the Homer Field, the same formation was picked up around 4,660 feet. The upper Glen Rose also has been touched in the Elm Grove Field at a depth of around 4,100 feet.

While some of the districts have favorable structures it is unlikely there will be an immediate drilling for the Trinity there because of the excessive depth. Also if the Bellevue Field being further down the slope, the chances of getting production in the Trinity, if found, are considered more favorable in Pine Island than in any other part of northwest Louisiana.

As previously mentioned, it is not known that the true Trinity sand does exist under the Glen Rose in northwest Louisiana, and if it does exist whether it is in reach of the drill. However, it is known that the Trinity outcrops in a narrow belt across southwestern Ar- of the most conspicuous exposures is at DeQueen, Ark., due north of Shreveport, where the Trinity shows a thickness upwards of 2,000 feet.

According to geologists, at the contact between the Trinity and the Paleozoic floor upon which the Trinity rests at the DeQueen outcrop, where the cover is removed by erosion, there is an average slope of about 80 feet to the mile. But, there is no assurance that this slope is uniform down through northwest Louisiana. On the other hand it is probable that there are numerous unconformities which make any estimates or opinions regarding the Trinity in this district impossible.

Only the drill can tell, but, although general observations and indications point to the existence of commercial oil of high gravity in the Trinity there have been no tests to its level. Despite several deep tests in the Pine Island-Caddo district, none has passed out of the upper horizon, the Glen Rose.

Deepest Test

The deepest test ever drilled in that district, Gulf Refining Co.'s No. 1-E Muslow, Section 35-21-15, even went to a total depth of 4,963 feet without passing out of the Glen Rose. This test was abandoned as dry in September of 1926. This test, however, was far south down the Pine Island high and probably was not as favorably located for a Trinity test. The Dixie Oil Co. also drilled a 4,482-foot hole in Section 27-22-15, to the north and got salt water in the Glen Rose. In this direction there is a pronounced syncline between the Pine Island and the Hosston Fields, the latter being a shallow pool.

The development of the Pine Island Field, especially as it concerns deep wells, has been of particular interest and marked both with encouragement and discouragement. Many of the wells have possessed freakish traits with the outcome of the various wells hinging more on local formation conditions than on structure locations and depths. That is, the porosity of limestone or a possible fractured zone has had particular bearing on each individual well.

The Pine Island Field originally came into being in the form of an extension to the old Caddo Field although there is a very decided saddle between the two areas which has been found unproductive. The original pool took its name from an island formed by the course of a bayou for it was there that the first wells were drilled. That island is considerably to the southwest of what is known as the main Pine Island Field today.

Oil really has been known to exist in this district since 1905 but it was not until 1916 and 1917 that development of the shallower horizons began in earnest. Production from the Woodbine and other shallower levels played an important part in production figures of the Caddo Field.

New Era Begun

But, several years later, in 1921, a new era was marked in the development of the field when the Dixie Oil Co. brought in its No. 29 Dillon (Robertshaw) from a depth of 2,887 feet, at that time a deep well. This production was only from the upper Glen Rose but it stimulated still deeper drilling.

The Dixie Oil Co. has been a pioneer in deep drilling in northwest Louisiana and in the Pine Island district, and, it was that company which got the lower Glen Rose discovery well. This was the No. 43 Dillon (Robertshaw), Section 13-21-15.

This well was completed November 2. 1924, at a total depth of 3,623 feet, where it blew out making 45,000,000 feet of gas with a rock pressure of 1,550 pounds. This well created a sensation as the gas was rich in gasoline, yielding 525 gallons to 1,000,000 feet.

The next three wells, completed in succession by the Dixie Oil Co., the Fortuna Oil Co. (Magnolia Petroleum Co.) and the Ohio Oil Co., were all gassers, each of which later turned to salt water, and it was not until December 11, 1925, that the first oil was tapped from this deep level, the lower Glen Rose.

This oil discovery well was completed by the Dixie Oil Co., it being the No. 53 Dillon (Robertshaw), Section 13-21-15, which came in at a depth of 3,790 feet flowing 250 bbls. of oil, 20,000,000 feet of gas and 3,000 bbls. of salt water. The oil production, however, gradually increased until it reached 750 bbls. daily, and today this well still is flowing at the rate of 60 bbls. daily.

Several other wells then were completed with varying results and in Oc-

(Continued on Page 131)

REPORT OF TECHNICAL COMMITTEE RECOMMENDS CREATION OF FORUM

Outlining in detail recommendations for the co-ordination of technical activities related to all branches of oil under the American Petroleum Institute, the technical committee, of which E. W. Isom, vice president of the Sinclair Consolidated Oil Corp., has submitted its report to the board of directors of the Institute. In effect the plan aims toward the creation of an Institute of Petroleum Technologists as a part of the American Petroleum Institute. The committee stresses the importance of certain of the existing technical organizations and does not have in mind that they will necessarily disband their petroleum divisions or cease their activities. On the contrary, in some instances, the committee is convinced that the effective work of these societies should be continued and encouraged.

The outstanding thought behind the committee's proposals is that machinery should be provided by the oil industry itself through which co-ordinated and official action on technical matters can be had when required, and that also a forum should be created for the presentation, discussion and publication of all appropriate technical and scientific matters connected with petroleum. It classifies the field under the following heads: Petroleum geology, production engineering, transportation engineering, refinery technology, distribution engineering. In the broad field of petroleum engineering it finds that the subjects of production engineering, transportation engineering and distribution engineering are not at the present time adequately covered by an existing society, and, as it believes there is immediate need for the provision of facilities to handle the subjects of production engineering and refinery technology, it proposes the prompt formation of an organization within the American Petroleum Institute which will include them. It proposes a plan of organization for each division now and hereafter organized, with division officers, general division and regional subdivisions. It also proposes the establishment of a technical journal.

Committee Report

The committee's complete report, unanimously adopted, follows:

"Your committee has found no single agency which provides machinery for use by the technical men of all branches of our industry nor has it found any established facilities for the co-ordination of technological activities relating to the petroleum now being carried on by numerous technical societies.

"Prior to the organization of the American Petroleum Institute the petroleum industry had no national organization

(Continued on Page 141)

Minor Changes in Plant Operations

Crude Runs to Stills of Mid-Continent Refiners Practically Same as in June. Add Two New Plants

By W. T. Ziegenhain

Very little change in the crude runs at the Mid-Continent refineries on July 1 compared to June 1 reflects the relatively unfavorable market conditions although the period of high gasoline consumption has arrived. As shown in Table 2, however, both the June and July runs are higher than those of the corresponding months last year. This is principally due to including the operations of the new 10,000-bbl. topping plant belonging to the Humble Oil & Refining Co. at McCamey, Tex. The operation of this plant has not been included in previous reports, although it has been in operation for three months. This was due to the fact that the plant was not making finished products, the tops being mixed with crude oil for pipe line shipment to the Gulf Coast. Part of the tops are now made into gasoline suitable for the market. The plant of the San Angelo Refining Co. was also added to the list of operating refineries in Texas.

The June totals include the operation of this plant in this report for comparative purposes. The actual total increase in the July runs amounts to 1,905 bbls. compared to June. The increase of 4,440 bbls in Kansas and the increase of 1,265 bbls. in North Central Texas overcame the decrease of 3,900 bbls. in Oklahoma.

Less Last Year

Comparing the runs of July 1 of this year and last year, the increase of 18,005 bbls. is caused by the increased runs in North Central Texas of 20,775 bbls. and in Oklahoma of 7,205 bbls. as both Kansas and North Louisiana showed decreases, while Arkansas remained about the same.

There is a tendency for some small plants to resume operations because of the low crude prices and the ability to buy crude near the plant and dispose the products in the vicinity of the plant.

Oklahoma

The only major change in the operations of the Oklahoma plants is in the discontinuing to run crude at the Okmulgee plant of the Empire Refineries, Inc., as a result of making revisions in the distilling equipment following the fire last month. The latest type of fractionating and control equipment is being installed and normal operations will not be resumed until next month. The White Oak Refining Co.'s plant at Allen, which has been operating but a short time, has set a crude schedule of 1,800 bbls. daily for July.

Kansas

The Kansas refiners showed the largest gain in crude runs but this only amounted to 4,440 bbls. and was distributed among several plants. There was no change in the number of plants nor in the number of plants operating. Some Kansas plants have curtailed their cracking operations but there is no general shutdown.

There was no change in the operations of Arkansas and North Louisiana refineries over the month. The present operating status is practically the same as that of last year.

North Central Texas

After including the operations of the McCamey plant of the Humble Oil & Refining Co. in both the June and July summaries, there is little difference in the crude run in the two months for the entire state. The Wichita Falls refinery of the Miller Petroleum Co. is being dismantled and the Oriental Refining Co.'s plant at Dallas has been shut down. The plants resuming operations include the Grand Prairie plant of the Primtex Refining Co., running 2,500 bbls.; the Star Refining & Producing Co.'s plant at Fort Worth, running 250 bbls., and the Travis Refining Co.'s plant at Burkburnett, running 150 bbls. The Primtex Refining Co.'s plant has resumed operations with George Dartois, a new superintendent, in charge.

RUNS TO STILLS IN MID-CONTINENT REFINERIES

	Bbls. Daily
1925	
May 1	398,940
June 1	423,950
July 1	440,350
August 1	427,382
September 1	407,690
October 1	415,575
November 1	383,225
December 1	375,979
1926	
January 1	390,200
February 1	385,845
March 1	365,990
April 1	368,210
May 1	391,355
June 1	415,450
July 1	410,070
August 1	407,475
September 1	419,995
October 1	408,975
November 1	417,575
December 1	403,450
1927	
January 1	403,625
February 1	418,595
March 1	418,920
April 1	401,860
May 1	407,355
June 1	426,170
July 1	428,075

MID-CONTINENT REFINERY OPERATIONS
Table No. 1
(Based on plants July 1, 1927, and June 1, 1927.)

	*No. Plants July 1	Crude Cap'y (Bbls.)	Cracking Capacity (Bbls.)	Plants Operating July 1	Runs to Stills July 1 (Bbls.)	Plants Operating June 1	Runs to Stills June 1 (Bbls.)	Daily Decrease July 1
Oklahoma	47	269,900	80,100	43	180,275	42	184,175	†3,900
N. C. Texas	41	178,800	41,800	37	105,300	33	104,035	1,265
‡Kansas	20	130,000	61,600	16	88,300	16	83,860	4,440
North Louisiana	5	34,000	19,300	4	34,000	4	33,900	100
Arkansas	11	43,300	30,000	8	20,200	8	20,200	....
Total	124	656,000	232,800	108	428,075	103	426,170	1,905

*Does not include plants shut down one year or more. †Decrease. ‡Includes two Missouri plants.

Table No. 2
(Based on plants July 1, 1927, and July 1, 1926.)

	*No. Plants July 1, 1926	Crude Cap'y July 1, 1926 (Bbls.)	Plants Operating July 1, 1926	Runs to Stills July 1, 1926 (Bbls.)	Daily Increase July 1, 1927
Oklahoma	56	274,800	49	173,070	7,205
N. C. Texas	40	165,250	30	84,525	20,775
‡Kansas	22	130,700	17	94,000	†5,700
North Louisiana	7	41,500	6	37,800	†3,800
Arkansas	9	31,000	9	20,675	†475
Total	134	643,250	111	410,070	18,005

*Does not include plants shut down one year or longer. †Decrease. ‡Includes one Missouri plant.

REFINERY OPERATIONS IN OKLAHOMA
(Plants which have been in operation during the past year.)

Name and Location—	Daily Capacity	Runs July 1	Runs June 1
Anderson-Prichard Oil Corp., Cyril	2,000	1,900	1,700
Barnsdall Refineries, Inc., Barnsdall	6,000	3,500	3,500
Barnsdall Refineries, Inc., Okmulgee	10,000	5,500	6,000
Bell Oil & Gas Co., Grandfield	4,500	2,000	2,000
Bolene Refining Co., Enid	5,000	2,000	2,600
Cameron Refining Co., Ardmore	4,000	3,000	3,000
Canfield Refining Co., Yale	500	75	75
Champlin Refining Co., Enid	16,000	11,000	11,000
Continen.al Oil Co., Sapulpa	10,000	2,400	2,400
Cushing Refining & Gasoline Co., Blackwell	1,500	1,300	1,400
Cushing Refining & Gasoline Co., Cushing	3,500	2,000	2,100
Empire Refineries, Inc., Cushing	5,000	4,700	4,700
Empire Refineries, Inc., Okmulgee	3,000	....	3,000
Empire Refineries, Inc., Ponca City	7,500	7,500	7,500
Garber Refineries, Inc. (Omar), Garber	3,500	3,000	2,800
Gilmer Oil Co., Ringling	1,500	Shut down	Shut down
Globe Oil & Refining Co., Blackwell	5,000	4,000	4,500
Illinois Oil Co., Cushing	3,000	1,600	2,800
Imperial Refining Co., Ardmore	5,000	3,300	3,400
Independent Oil & Gas Co., Okmulgee	4,000	2,700	3,000
Interocean Refining Co., Bristow	4,000	1,000	1,000
Johnson Oil Refining Co., Cleveland	5,000	5,300	5,300
Marland Refining Co., Ponca City	28,000	20,000	20,000
Mid-Continent Petroleum Corp. (Cosden), West Tulsa	40,000	24,000	24,000
Oil State Refining Co., Enid	2,000	Shut down	Shut down
Oil State Refining Co., Allen	800	500	500
Peppers Gasoline Co., Covington	1,000	700	1,000
Pierce Oil Corp., San Springs	12,000	7,000	7,500
Producers Oil Co., Bris ow	2,500	1,000	1,000
Producers & Refiners Corp., West Tulsa	6,000	3,500	3,000
Pure Oil Co., Ardmore	5,000	2,000	2,000
Pure Oil Co., Muskogee	8,000	6,500	5,000
Riley Petroleum Co., Bristow	1,000	500	500
Rock Island Refining & Pipe Line Co., Duncan	2,500	1,500	1,500
Sayre Oil & Refining Co., Sayre	500	Shut down	Shut down
Shaffer Oil & Refining Co., Cushing	10,000	10,000	10,000
Sun Oil Co., Yale	3,000	3,000	3,000
Sinclair Refining Co., Muskogee	1,000	Shut down	Shut down
The Texas Company, West Tulsa	10,000	12,000	12,000
Texas Pacific Coal & Oil Co., Wynnewood	2,500	1,600	1,600
Tidal Refining Co., Drumright	10,000	8,500	9,200
Transcontinental Oil Co., Boynton	2,500	1,500	2,000
Transcontinental Oil Co., Bristow	5,000	4,000	4,000
Tonkawa Petroleum Co., Tonkawa	2,500	800	700
Western Oil Corp., Beckett	2,000	1,000	1,000
Whi.e Oak Refining Co., Allen	2,000	1,800	Shut down
Yale Oil Corp., Yale	1,500	1,100	900
Total	269,900	180,275	184,175

REFINERY OPERATIONS IN NORTH CENTRAL TEXAS
(Plants which have been in operation during the past year.)

Name and Location—	Daily Capacity	Runs July 1	Runs June 1
Alamo Refining Co., Isom	1,600	1,000	1,000
Amarillo Producers & Refiners Corp., Isom	2,000	1,000	1,000
Amarillo Refining Co., Amarillo	5,000	3,000	3,000
American Refining Co., Wichita Falls	7,000	2,000	4,500
Anderson & Prichard Oil Corp. (Western), Wichita Falls	1,500	1,500	1,200
Col-Tex Refining Co., Colorado	7,500	6,000	6,200
Continental Oil Co., Wichita Falls	6,000	2,200	4,100
Dale Oil & Refining Co., Electra	2,500	2,150	2,200
Empire Refineries, Inc., Gainesville	5,000	4,000	4,000
Falls Refining Co., Wichita Falls	1,500	1,000	1,000
Gulf Refining Co., Fort Worth	10,000	6,500	6,500
Hagaman Refining Co., Tiffin	2,000	150	200
Humble Oil & Refining Co., Burkburnett	4,000	3,200	3,400
Humble Oil & Refining Co., McCamey	10,000	10,000	10,000
Iowa Park Producing & Refining Co., Iowa Park	2,500	1,400	1,200
Kent-Middleton Refining Co., Angus	4,000	1,300	1,300
Kent-Middleton Refining Co., Minerva	2,500	1,500	1,500
Macmillan Petroleum Co., Isom	3,500	3,000	2,785
Magnolia Petroleum Co., Fort Worth	12,000	5,000	6,500
Magnolia Petroleum Co., Corsicana	3,000	3,000	2,800
Megargel Refining Co., Megargel	1,500	Shut down	Shut down
Noble Oil & Gas Co., Burkburett	4,500	2,500	3,400
Olney Oil & Refining Co., Olney	1,500	1,500	1,500
Oriental Refining Co., Dallas	5,000	Shut down	100
*Orien.al Refining Co. (Trinity), Dallas	6,000	2,400	2,000
Orient Petroleum Co., Wichita Falls	4,000	850	1,000
Panhandle Refining Co., Wichita Falls	4,000	3,600	3,400
The Petroleum Corp., Electra	2,000	Shut down	Shut down
Primrose Refining Co., Wichita Falls	1,500	Shut down	Shut down
Primtex Refining Co., Grand Prairie	2,500	2,500	Shut down
San Angelo Refining Co., San Angelo	1,500	1,500	750
Simms Oil Co., Dallas	5,000	4,000	4,000
Star Refining & Producing Co., Fort Worth	1,800	250	Shut down
The Texas Company, Dallas	15,000	12,000	9,800
Tidal Western Refining Co., Burkburnett	5,000	2,100	2,300
Texas Pacific Coal & Oil Co., Fort Worth	6,000	2,600	2,600
Transcontinental Oil Co., Fort Worth	5,000	4,000	2,700
Travis Refining Co., Burkburnett	750	150	Shut down
Waggoner Refining Co., Electra	3,400	2,800	2,800
White Eagle Oil & Refining Co., Fort Worth	4,000	2,000	1,800
Valley Refining Co., Wichita Falls	2,500	1,750	1,500
Total	178,800	105,300	104,035

*Operated by Magnolia Petroleum Co.

REFINERY OPERATIONS IN KANSAS
(Plants which have been in operation during the past year.)

Name and Location—	Daily Capacity	Runs July 1	Runs June 1
Arkansas City Refining Co., Arkansas City	8,000	Shut down	Shut down
Barnsdall Refineries, Inc., Wichita	5,000	3,000	3,000
Derby Oil Co., Wichita	5,000	3,500	3,000
Derby Oil Co., Russell	2,500	Shut down	Shut down
Eldorado Refining Co., Eldorado	3,500	2,000	2,200
Golden Rule Refining Co., Wichita	1,000	1,000	700
Kanotex Refining Co., Arkansas City	10,000	7,000	7,200
Manhattan Oil Co., Kansas City	7,000	4,500	5,000
Miller Petroleum Co., Humboldt	2,000	Shut down	Shut down
National Refining Co., Coffeyville	6,000	6,400	6,000
Peerless Oil Refining Co., Chanute	3,000	1,800	2,500
Roxana Petroleum Corp., Arkansas City	20,000	18,000	14,000
Sinclair Refining Co., Coffeyville	8,000	7,500	7,500
Sinclair Refining Co., Argentine	7,000	7,500	7,500
Skelly Oil Co., Eldorado	16,000	12,000	10,900
Standard Oil Co. of Kansas, Neodesha	12,000	6,000	6,000

(Continued on Page 140)

Salt Dome Theory Big Factor in Utah

Tests Drilled There Have Caused Division of Opinion as to Value of Further Operations. Group Plans New Work

By Staff Correspondent

DENVER, Colo., July 9.—Decisions announced that two more test wells on the series of Colorado River structures south of Moab in southeastern Utah are to be abandoned brings to a close the first phase of a wildcatting campaign that was in many respects remarkable. After expenditures aggregating more than $500,000 had been made in the search for oil, one group of operators and permit owners have reached the conclusion that the possibilities have been exhausted and are ready to quit, while another group, convinced by the same evidence, are preparing to launch an equally as aggressive campaign in the belief that the drilling done up to this time points the way to a realization of their hopes.

The two wells being abandoned are No. 1 Prommell, Section 5-27-21, Cane Creek Dome, drilled by the Midwest Exploration Co. for Snowden & McSweeney, and No. 1 Kimball, Section 6-21-21, Gibson Dome, drilled by the Empire Gas & Fuel Co. The Prommell well stopped in salt at 3,520 feet and the Kimball well quit at 4,100 feet, also in salt.

The abandonment of these two wells is incidental to a major campaign extending over a period of several years which involved a number of unusual features. Thirty miles south of Thompson, in Grand County, on the Denver & Rio Grande Western Railroad, lies the little town of Moab, at the southern end of a plateau which is traversed on the east side by the Colorado River. Just below Moab the river breaks through a canyon which marks the beginning of the Grand Canyon of the Colorado River.

Desolate Region Near Moab

The region south of Moab was an uninhabited wilderness broken by deep arroyas and canyons, weird and fantastically shaped formations warped by erosion, and cut by the slow-moving muddy waters of the Colorado. High on the walls of the canyons were the heiroglyphics scrawled by the hands of extinct races of men. The land was desolate and unsurveyed.

About 12 miles south and west of Moab in an air line lies Cane Creek, the first of a series of domes comprising what are generally called the Colorado River structures. The others include the Shafer Dome, Lockhart Canyon Dome, and the Indian Creek Dome. The first serious attempt to map the structures was made in 1921 when a party headed by H. W. C. Prommel and H. E. Crum entered the district, commenced running section lines and staking out claims. There were no roads in the district at that time and only a few cattle trails. Prommel and associates soon learned that they were not alone in the desert. Another party had gone in by airplane from Green River and another was making its way up from Monticello in the southeastern corner of the State. The results were some conflicting filings, a better knowledge of the nature of the country and the structures, and the inauguration of moves to get some testing done.

The domes are so pronounced that they can be read like a book with the naked eye. There was, however, little to guide the geologists as to the subsurface geology. The best information obtainable was secured from the log of a well called the Big Six, on Section 34-25-21, near the town of Moab, which had had a number of oil and gas shows and which had been drilled mostly in the Pennsylvanian formation. The geologists estimated that all possible sands in the Pennsylvanian would be reached within 3,600 feet on Cane Creek.

Location of Test

Negotiations extended over a long period of time and finally in the winter of 1924-25, an agreement was reached for a joint test on the Cane Creek Dome by the Utah Oil Refining Co., and the Utah Southern Oil Co., the drilling to be done by the Midwest Exploration Co. The well was spotted in the C NW NE, Section 6-27-21, and in January, 1925, the moving in of equipment commenced. The location for the well was on a ledge of the Colorado River 65 feet wide at its widest point and 1,000 feet long, pinching out at both ends. Back of the ledge was a precipice 303 feet higher than the derrick floor. The top of the hole was 4½ feet above high water mark and 18½ feet above low water mark.

Material had to be trucked from Thompson to Moab, then transported by barge down the treacherous river to location. The river froze and sledges were substituted for barges. It was a long and tedious job to get things in shape for drilling and indicative of the character of all exploration that followed.

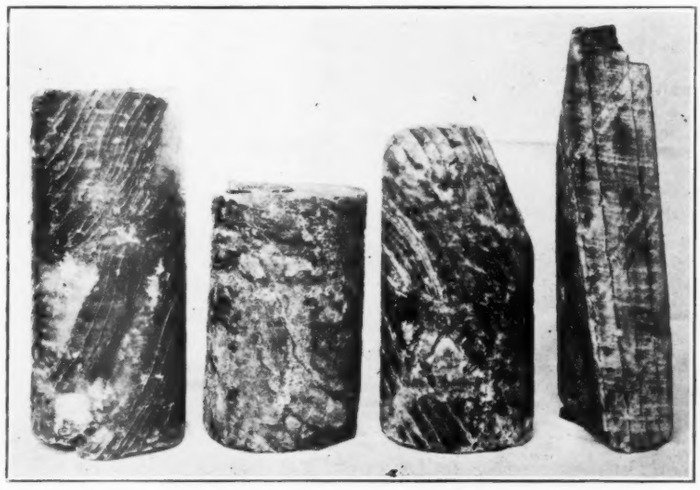
The test was started on the top of the structure on the theory that Cane Creek was a normal dome similar to other structures in the Rocky Mountain district. Cable tools were used. There was no guide to the subsurface geology beyond that indicated by the log of the Big Six well.

It is unnecessary to recount the long and tedious work, the numerous drilling difficulties and unavoidable delays in putting the well down. First show of gas, about 2,000,000 feet a day, was encountered at 1,408 feet. At 1,990 feet the well again commenced making gas and at 2,024 feet, it blew in making 2,000,000 feet of gas and some oil. The rig was destroyed by fire. The 10-inch casing was hanging on a spider at 1,990 feet. The well commenced flowing by heads, making some water with the oil. The water disappeared for a while and the oil flow increased to 350 bbls. a day. The rig was rebuilt and efforts made over a period of several months to shut off the water, but without success. Drilling was then resumed and the 6¼-inch casing was cemented at 3,272 feet shutting off the horizon at 2,024 feet. At 3,645 feet, there was more oil and gas and at 4,950 feet it entered another saturated horizon which blew the tools up the hole and lodged them, the well making several flows by heads. Mud fluid was used to hold back the pressure while the hole was cleaned. When the old bottom finally was reached, the oil had disappeared. The hole was then drilled to 5,200 feet and operations suspended.

Showings Stimulated Activity

It was these showings which started the rush of operators into southeastern Utah and the erection of a number of rigs in the belief that a new pool of considerable proportions had been discovered. However, more than 80 per cent of the formations cut by the Cane Creek test was salt in which were imbedded thin strata of shale and lime and some sand. The theory generally held was that

(Continued on Page 91)



Salt cores from the General Petroleum Co.'s No. 2 Wilcox in the N½ SE¼, Section 6, Township 47 North, Range 19 West, Montrose County, Colorado, show distinct salt flowage lines. The salt appears to be thin bedded, each bed being separated from the other by thin shale partings. These shale partings reveal in a splendid manner the structural attitudes of the salt from this salt dome.

Core No. 1, at the left of the photograph, shows the thin shale partings, as well as a break in the mixture of salt and anhydrite which appears to have later been filled by pure salt. This core was taken at a depth of 3,734 feet in the well.

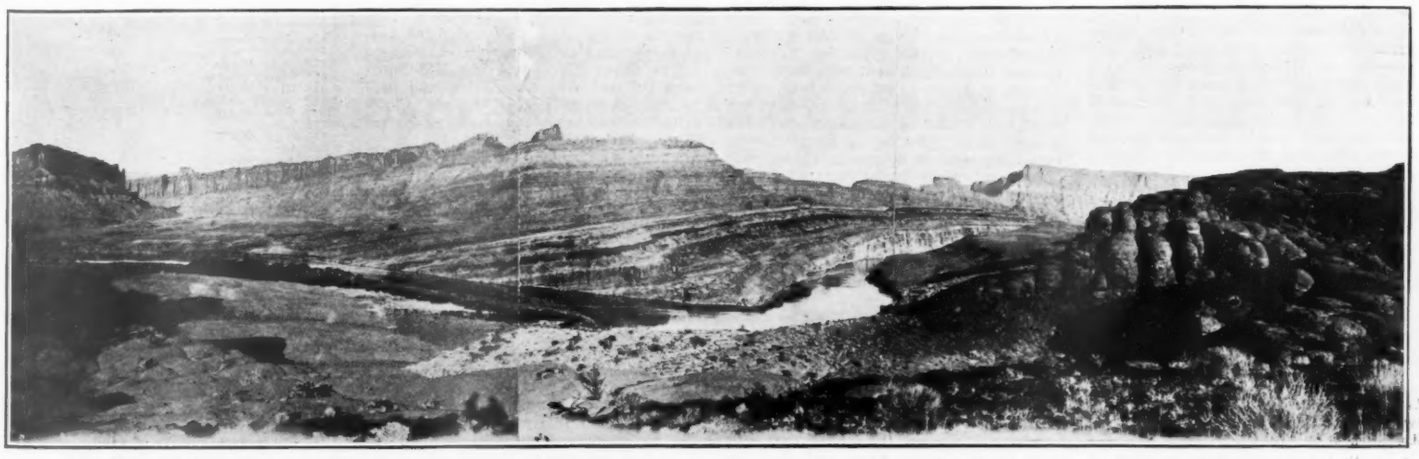
Core No. 2 was taken at a depth of 4,020 feet in the well. It plainly shows distorted bedding planes.

Core No. 3. The third core from the left in the photograph shows similar conditions as core No. 1. This core was taken at a depth of 3,740 feet in the well. This core shows a round top showing some dissolution of the salt while coring.

Core No. 4 is a core which was taken at a depth of 3,984 feet. It is part of a core which split along the nearly vertical bedding planes.

No. 2 Wilcox is located about three-fourths of a mile from the crest of the Paradox Valley Anticline. The cores taken from the well show that the salt has been subjected to considerable flowage. Conditions as shown by these cores point to the importance of flank wells being drilled on these anticlines of southeastern Utah and southwestern Colorado before they can be considered as proven or disproven with respect to the accumulation of oil and gas in commercial quantities.

No. 2 Wilcox starts in anhydrite at the surface.



Cane Creek structure. Note dips of formations away from apex. Discovery well is located in the canyon at right of picture, on bank of the river.

Roxana's Deep Well Has Unique Record

Drilled to Total Depth of 5,989 Feet Without a Fishing Job. Has String of 5-Inch 5,764 Feet Long

By J. L. Dwyer

By discovering the Wilcox sand in Logan County, Oklahoma, the Roxana Petroleum Corp. has scored another scientific triumph, and another new field has been opened by the drill. As in the case of several fields which the Roxana Corp. has developed, the core drill played a very important part, for while the block of leases upon which the new well is located was purchased on account of favorable indications as revealed by the workings of surface geology, the core drill was brought into play, and its showings resulted in the decision to drill the property.

The new well is the first big production for Logan County, a region which has long been the scene of leasing and geological interest. The interest crystallized last year when various showings in sands thought to be members of the Tonkawa group were found at depths averaging around 4,200 feet. The great depth of the Wilcox sand as calculated by the position of the Tonkawa sand caused some delay in the progress of deeper drilling activities, as the completion of 6,000-foot wells is an item of real expense and investment, but the Roxana Petroleum Corp. which has blazed several geological trails since its entry into the Mid-Continent fields, decided to test the possibilities of the Wilcox upon its block of leases.

The new well is the Roxana Petroleum Corp.'s No. 1 McCully, SW cor. NE SE. Section 30-19-4w, Logan County, near the town of Marshall. It is located on a block of 2,500 acres, which was leased by the Roxana following a surface geological survey in the summer of 1923. The leases were taken in the fall of that year. The core drill was brought into play about two years ago on the block, and it revealed sufficient information to warrant a drilling operation.

Interesting Features

There are dozens of interesting phases to the new well. It is the deepest producing well in the Mid-Continent Field. It contains what is thought to be the longest string of 5-inch casing in the Mid-Continent territory; and wonders of wonders it was drilled all its length without a single fishing job, and drilled in slightly less than one year, remarkably good time for such deep drilling.

It is estimated that the final cost of the well will be very close to $150,000. Rotary tools were used to a depth of 4,355 feet, and that much 8-inch casing was run. A long string of 6-inch was run at a depth of 5,034 feet, and then came the record string of 5-inch, 5,764 feet, about one and one-tenth miles of casing lowered into the hole without damage.

The well was drilled by contract to the spot where the rotary stopped, and from that time on, it was done by day work at the expense of the Roxana Corp. The fact that it was completed without a fishing job, is a most remarkable accomplishment, and speaks volumes for the owner's operating department.

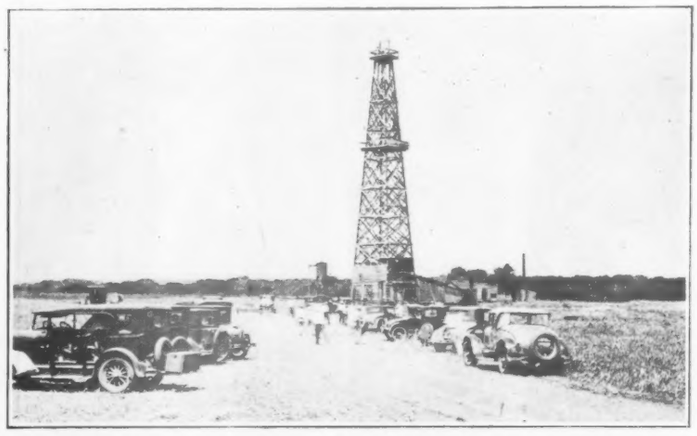
The finding of deep production in Logan County starts another epoch in the history of northwest Oklahoma. There has been a limited amount of prospecting conducted in this county for several years. T. B. Slick was one of the operators who became enthused over its possibilities during the summer of 1926, when he encountered a showing at a depth of 4,200 feet in Township 18-4w. Upon the strength of this showing, he purchased a large amount of acreage, some of it reasonably close to the new Roxana well. After the failure of the showing in 18-4w to materialize into good production, Mr. Slick was reported to have regarded his Logan County purchases as more or less of a dead loss, but the new find changes his prospects.

Wilcox Shows Deep Dip

The position of the Wilcox in this part of the state indicates that it is very deep-seated, and shows a steady dip from the Garber Field in Garfield County which is about 20 miles northwest of the new well. In the Garber Field the Wilcox was found at a depth of 4,400 feet, and this displays a dip of 1,580 feet in 20 miles.

The only significance of the deep position of the Wilcox in this area is a greater cost of exploration. The dips of the Wilcox are evident in many regions. In the Key West Field of Lincoln County, Oklahoma, the Wilcox produces at a depth of 4,000 feet, while at Cushing barely 18 miles away, it is struck at 2,800 feet. This plunge of the Wilcox is comparable to the plunge observed from Garber to Marshall.

Another unusual feature of the new well is that it uncovered almost 200 feet of sand before the big pay was struck. The first oil was found at 5,812 feet, and this was just a showing. The first real production was found at 5,909 feet, and from this point on down, the well began making from 200 to 300 bbls. daily, with 1,000,000 feet of gas. The top of the big pay was found at 5,985 feet, and from that point it is thought the well drilled itself a few feet deeper. The big pay yielded an initial production of 2,800 bbls., and this increased to 3,300 bbls. with 10,000,000 feet of gas which is coming with the oil.



The deepest producing well in the Mid-Continent Field; Roxana Petroleum Corp.'s No. 1 McCully, Section 30-19-4w, Logan County, Oklahoma.

The discovery of the big pay found the Roxana Corp. with a very limited amount of storage, and about 10,000 bbls. of crude already in the stock tanks. A hasty storage building campaign was necessary, and even now, there is a considerable quantity of oil in earthen storage as the tank builders have not been able to construct tanks rapidly enough to catch up with the output of the well.

The Ozark (Roxana) Pipe Line Co. is laying a line from the Garber Field to connect with the new well, and the production will be run to the Roxana refinery at St. Louis. In spite of the huge output of the well, the block will be conservatively drilled, and only four additional locations have been made to date as the Roxana Petroleum Corp. owns the entire block of leases, there will be no line fights or unnecessary drilling rush, and it is thought quite likely that the maximum production of this block of leases will not be touched before two years, and by that time, it is considered likely that the oil industry will present a totally different picture.

Log of the Well

A log of the well follows:

Roxana Petroleum Corp.'s McCully No. 1, Logan County, Oklahoma, commenced July 9, 1926.

10	Surface clay.
34	Sand.
119	Pack sand, little red sand.
139	Red bed.
211	Packed sand.
301	Red bed.
421	Shale and shells.
481	Sand.
571	Red bed.
640	Blue shale.
650	Sand.
843	Shale, little lime.
870	Red bed.
936	Shale.
947	Sand.
1,046	Red bed.
1,095	Red bed, little gyp.
1,095	SLC.
1,113	Shale.
1,166	Red bed gypsum.
1,170	Sand.
1,195	Red bed.
1,240	Blue shale with streaks of gyp.
1,306	Blue slate and gyp.
1,315	Blue shale and lime shells.
1,355	Blue shale.
1,377	Brown shale and lime shells.
1,410	Brown shale with streaks of sand.
1,419	Brown shale.
1,455	Blue shale.
1,470	Blue shale—little lime.
1,494	Sandy shale.
1,505	Broken lime.
1,515	Sandy shale.
1,532	Brown shale, little lime.
1,540	Sandy shale.
1,570	Broken lime.
1,581	Lime sandy.
1,659	Brown shale and lime shells.
1,661	Broken lime.
1,670	Shale brown.
1,683	Lime.
1,705	Brown shale.
1,722	Broken lime.
1,777	Brown shale.
1,794	Sandy shale.
1,810	Brown shale.
1,815	Lime.
1,840	Brown shale.
1,852	Lime.
1,900	Brown shale.
1,914	Sandy shale.
1,923	Sand.
1,929	Lime.
2,045	Blue shale.
2,056	Sand.
2,065	Brown shale.
2,080	Sand.
2,095	Blue shale.
2,109	Broken lime.
2,128	Lime.
2,148	Blue shale.
2,155	Lime.
2,160	Sand.
2,271	Blue shale.
2,278	Lime.
2,286	Lime sandy, streaks shale.
2,364	Blue shale.
2,402	Blue shale and lime shells.
2,454	Blue shale.
2,459	Sandy shale.
2,468	Blue shale.
2,479	Sandy shale.
2,514	Blue shale
2,517	Sandy shale.
2,567	Blue shale.
2,571	Lime.
2,579	Blue shale.
2,584	Lime.
2,632	Blue shale.
2,638	Lime.
2,772	Blue shale.
2,788	Lime.
2,801	Broken lime.
2,828	Blue shale.
2,831	Lime.
2,885	Blue shale.
2,891	Lime.
2,893	Blue shale.
2,909	Lime.
2,916	Lime sandy.
2,932	Broken lime.
2,980	Blue shale.
2,983	Sandy shale.
2,988	Sand.
3,010	Blue shale.
3,013	Sand.
3,029	Sandy shale.
3,037	Sand.
3,053	Blue shale.
3,057	Sand.
3,099	Sandy shale.
3,105	Shale with streaks of sand.

(Continued on Page 140)

COLONEL LINDBERGH URGED TO VISIT PETROLEUM EXPOSITION IN TULSA

Col. Charles Lindbergh will visit Tulsa during the latter part of September and efforts are being made by officials of the International Petroleum Exposition, to be held here September 24 to October 1 to have the transatlantic flyer reach Tulsa September 28 or 29 and make an official visit to the exposition grounds. Colonel Lindbergh's visit will be in connection with his nation-wide tour under the auspices of the Daniel Gugenheim Fund, and Tulsa officials have suggested his coming to Tulsa during the petroleum exposition will be especially appropriate on account of the intense interest in the spread of aviation being displayed by the oil industry.

Aviation will take a prominent part in the exposition and numerous oil companies owning planes will send these ships to Tulsa for the show. In addition, Lieutenant Colonel Paegelow of Scott Field has promised to fly a blimp to Tulsa for the exposition.

The exposition, through its general manager, J. Burr Gibbons, announces a number of new features in connection with the oil show.

Mr. Gibbons states President Coolidge has agreed to press the button that will open the exposition gates and that the State Department will aid in invitations to representatives of all countries to take part in the exposition and congress.

Foreign trade relations will be represented by several groups, notably one of international oil and machinery men coming to the exposition under the auspices of the Ford Motor Co.

The safety division of the Mid-Continent Oil and Gas Association will hold its annual meeting here and put on its drills and contests the opening day of the exposition, September 24.

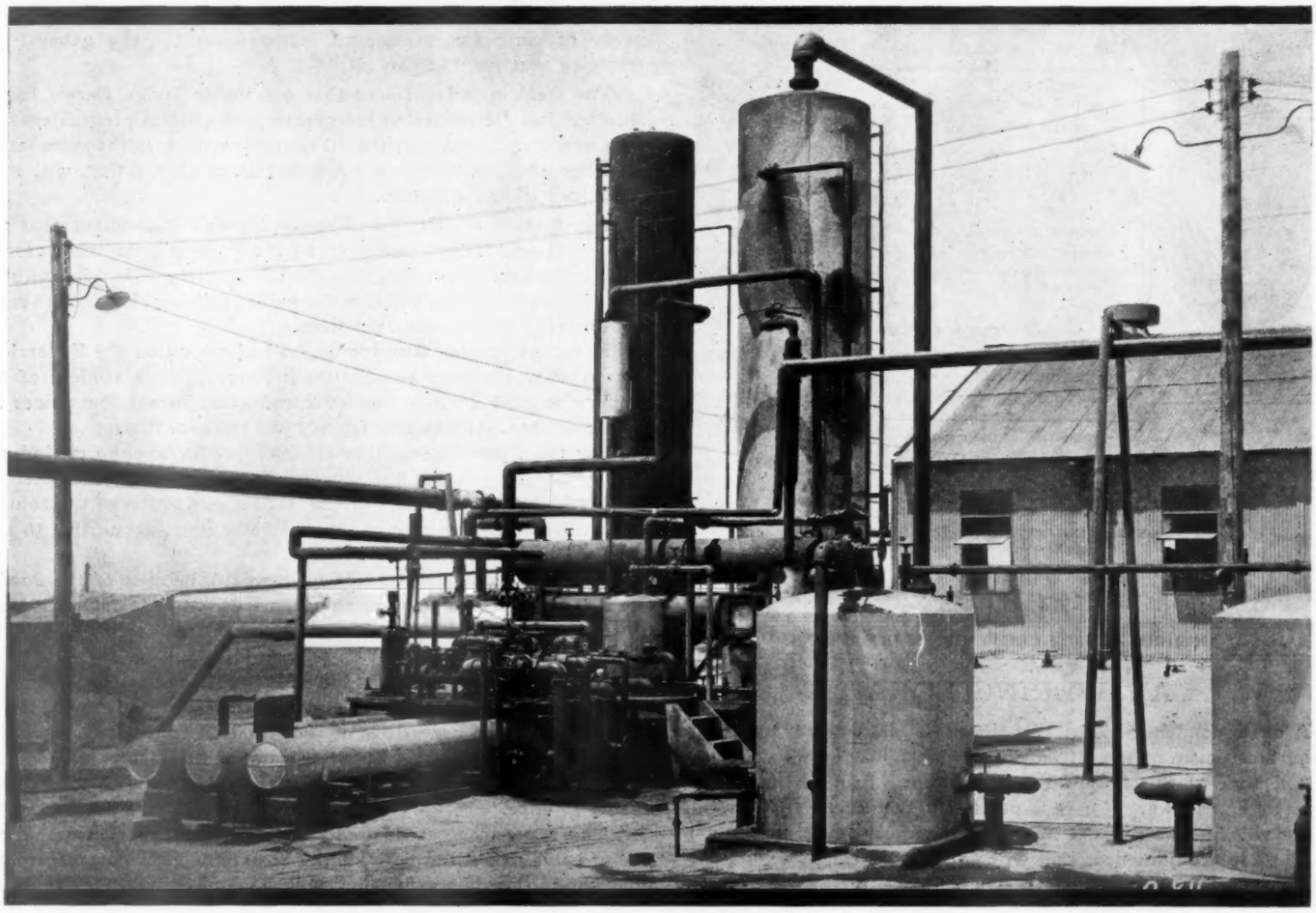
The Mid-Continent Oil and Gas Association dinner, September 30, will bring to Tulsa many of the leading oil and gas men in the association's territory. Governors of several states, with other officials, are expected to attend the dinner and be guests of the exposition.

The State of Oklahoma has officially recognized the exposition through its geological survey and the Governor's office. The geological display is expected to be the greatest ever assembled, and special attention will be paid to geophysical developments.

President E. W. Clark of the American Petroleum Institute plans to attend and he encourages attendance upon the

(Continued on Page 138)

Again—at Borger, Texas—



The Marland Oil Company has installed its newest Newton Portable Gasoline Plant—the Marland No. 14, Mr. J. E. Jones, GENERAL MANAGER, GASOLINE DEPT.

Representatives

HURLEY BROTHERS
Kennedy Bldg.
TULSA, OKLA.

THE NATIONAL SUPPLY CO.
General Offices, Toledo, O.,
and All Stores

Foreign Representatives

THE NATIONAL SUPPLY CORP.
120 Broadway
NEW YORK

MOST EFFICIENT—MOST ECONOMICAL

"Newton Process Is the Profit Process"

NEWTON PROCESS

MANUFACTURING COMPANY

FULLERTON, CALIFORNIA

The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

Published Weekly by
THE PETROLEUM PUBLISHING COMPANY
114-116 West Second Street
TULSA, OKLA.

Established as an International Publication in 1910 by Patrick C. Boyle

President - - - - - - - - - - - - Frank T. Lauinger
Vice President and General Manager - - Robert W. Egan
Secretary-Treasurer - - - - - - - - - - W. T. Bryan
Editor - - - - - - - - - - - - - James McIntyre
News Editor - - - - - - - - - - Andrew M. Rowley
Associate Editor - - - - - - - - - - W. T. Anderson
Refinery Editor - - - - - - - - - - - C. O. Willson
Technical Editor - - - - - - Charles K. Francis, Ph.D.
Advertising Manager - - - - - - - - Clarence Morris
Circulation Manager - - - - - - - - - J. P. Mulkern

DISTRICT ADVERTISING OFFICES

C. L. CAIN - - Room 629, 101 Park Ave., NEW YORK CITY
E. KLAPPENBACH, 1328 Peoples Gas Bldg., CHICAGO, ILL.
C. F. TOPE, 421 Union Mortgage Bldg., CLEVELAND, OHIO

TERMS OF SUBSCRIPTION
(By Mail, Postage Prepaid)

Single copies - - - - - - - - - - $ .15
Three months - - - - - - - - - - $2.00
Six months - - - - - - - - - - - $3.00
One year (in United States) - - - $6.00
One year (in Canada) - - - - - $7.00
One year (foreign countries) - - - $7.00

ADVERTISING RATES ON APPLICATION
Telephones: 6291-6292-6293
Remittances by Checks, Drafts, Express or Postal Money Orders should be made payable to
The Petroleum Publishing Company
Cable address, "Oilgasnal"

MEMBER AUDIT BUREAU OF CIRCULATIONS

ANSWERING BORAH

A correspondent writes: "If there is an answer to Senator Borah's criticism of the oil industry, what is it?"

The tone of this question coming from a man in the industry suggests one answer. There is persistent skepticism that anything can or will be done; that it is foolish to expect anything better because there are influences that will not permit it.

This mental attitude was much in evidence during the Washington and New York conferences and continued after the Seminole agreement. It assumed from the start that the movement was doomed to be a failure.

The oil business is not peculiar in possessing worldly-wise pessimists who know all the time there is no use trying anything new. But there are occasions when it does seem that it has an undue proportion of them.

Suppose some of these people try to answer Senator Borah's criticism themselves and see where it lands them.

He has told them that "if those in charge of our great natural wealth do not want government interference or ownership it is largely in their hands not to have it."

Is the oil industry prepared to reply that it is useless to expect it to do anything because its methods will not let it?

That seems to be the only answer the pessimists can offer to Borah's indictment.

Fortunately that is not the only answer. The constructive forces in the industry are not of that hopeless temperament. They believe something can be accomplished and that there is sufficient ability in the industry to do it.

The Seminole agreement, no matter how opinions may differ as to its effectiveness, has marked a milestone in the industry's progress. It has shown that oil men can get together and that when they do they have a free hand, at least under the present business administration at Washington, to work out their own remedies.

Co-operation may not be as complete and as effective as it might be and ought to be, or as it must be if the government interference or control of which Senator Borah speaks is to be avoided. But the industry has been long set in its ways of fierce individual competition and, as the saying goes, "it is hard to teach an old dog new tricks."

The Federal Oil Board, Senator Borah, and other critics are really doing the industry a valuable service in forcing the necessity for co-operation upon the attention of the oil business.

More and more, within the industry, it is being recognized that ruthless competition of the kind we have become accustomed to is bad for the business. The temporary advantage scored at the expense of competitors does not compensate for the general disturbance that reacts upon all.

The steel industry found that out under Judge Gary's leadership and has demonstrated the greater and general profitableness of co-operation. Eventually the oil business will learn the same lesson, if delay does not invite government interference that will make profit out of the question.

But there are counts in Senator Borah's indictment that will not stand up. He assumes, as so many people do from reading the newspaper statements, that the oil industry is making millions out of overproduction and that the public is being charged unreasonable prices for petroleum products.

If, before making that speech, he had consulted the Federal Oil Board he would have been better informed. As a student of economics he should know that overproduction means low prices and lower returns. His farmer friends can tell him that.

Far from growing wealthy on flush production the oil industry as a whole is suffering the severest depression since the after-the-war deflation. The owners of the settled production of the country, which furnishes the bulk of our normal supply, are unable to compete with the gusher output.

If the oil industry was rolling in wealth because of the flood of crude oil the quotations on the securities of oil companies would surely reflect it but Wall Street has been unable to discover any such indication.

Frankly, Senator Borah, the industry is doing the best it can and hopes to do better as the spirit of co-operation grows. It is as fully alive to the necessities of the situation from a business standpoint as anyone can be. But it is hampered by habits, customs and legal practices as old as the industry and which cannot be overcome at once.

The experiment at Seminole will provide experience that will be of value in dealing with similar situations elsewhere before they develop to the almost unmanageable stage of Seminole. The formation of local committees of producers to confer on means of meeting like problems in other pools will be a distinct improvement.

The suggestion that a general committee of producers proceed with the study of leasing methods and other fundamental practices which need to be harmonized with any program for co-operation should not be delayed.

In this connection the meeting of the Mineral Section of the American Bar Association at Buffalo on August 30 should be attended by the legal representatives of leading oil companies for the discussion of such changes or amendments in legal practices as may be deemed desirable or necessary for more effective co-operative control of production.

This is a matter that no one company can inaugurate. It must be the result of understanding and agreement and general usage, in fact, would be impossible without co-operation, short of compulsion by legal enactment or government regulation which would be likely to bring greater evils in its train.

The great hope that the industry will, through co-operation, solve its production problems lies in the demonstration of what it has accomplished in other aspects. Senator Borah must not forget that if it had not been for the immensely increased efficiency of the industry in recovery of crude oil the present flood of oil would not have been possible and had it not been for the marvelous development of refining and natural gasoline manufacture even the present flood of crude would have been insufficient to supply the demands of today's 23,000,000 automobiles.

It is not to be expected that the Government which Senator Borah admits is "the poorest business man the country has ever produced" would ever be able to equal that showing by the oil industry.

Let the oil industry alone, and give it a chance to work out this problem as it has successfully worked those others.

Along the trail of the lonesome pines
S.R. Dresser Mfg. Co.
Penna.
Bradford,
DRESSER
COUPLINGS
DOMINATE

Upton County Has 300-Bbl. Hour Well

Pinched in Until Pipe Lines Are Available. Church-Fields Pool Continues to Increase Output. Using Air Lift

By C. D. Lockwood
Staff Correspondent, North and West Texas

FORT WORTH, Tex., July 11.—An unexpected gusher in the Perry-Lane area of Upton County's southeastern trend which came in Saturday flowing at the estimated rate of 300 bbls. the first hour and was then pinched in to 80 bbls. an hour, diverted attention of West Texas operators during the past week from Crane, Pecos, Ector and Winkler Counties where little of importance aside from the building of pipe lines has transpired.

West Texas production dropped 3,797 bbls. this week from 127,658 bbls. to 123,861 bbls. due to continued pinching in of all wells in the Yates Pool of Pecos County where the Mid-Kansas Oil & Gas Co. and Transcontinental Oil Co.'s No. 6 Yates-A ran wild last week. The Yates Pool average amounted to just 4,478 bbls. this week as compared with 10,034 bbls. the previous 7-day period.

The Church-Fields Pool of Crane County continued to climb as new wells were completed and the combined output of 111 producers on the University and McElroy land reached 61,013 bbls. daily last week, or an average per well of 550 bbls. Gulf Production Co. led with 15,345 bbls. and the Eastland Oil Co. and Collett's 80 acres in Section 47, Block 30, came next with 11,600 bbls., although only 6 wells have been drilled in. Of special interest is Landreth Production Corp.'s increase to 5,100 bbls. daily from 6 wells on the State-Cowden-Anderson lease due to air lift on 4 of them. None of the Eastland-Collett wells is on air, however.

Using Air Lift Method

About 15 wells in this pool are now on air lift and practically all of the companies having large holdings are increasing their air equipment. Eastland Oil Co. and Collett have 11 units completed and ready for use as soon as an outlet for the increased production is provided. Tidal Oil Co. and Landreth each have 6 units completed. Simms Oil Co. and Atlantic have 4 units in operation and the Humble Oil & Refining Co. and Gulf Production Co. are both adding to their capacity.

Producing companies in Crane County find it increasingly difficult each week to care for their output and as a result much new tankage is going up. Landreth is building one 55,000-bbl. tank a week under a schedule which calls for 12 in all. He now has four of them completed and a fifth going up. Eastland Oil Co. is building a new 55,000-bbl. tank and has another in transit. This company is also putting up four 10,000-bbl. tanks and with its 64,000-bbl. tank constructed some time ago, and about 10,000 bbls. of smaller storage will have a total of 224,000 bbls. of storage space on its 80-acre lease.

Fifty-two derricks now adorn the Landreth Production Co.'s 400-foot-wide strip and the acreage immediately adjoining it on both sides. Landreth's No. 13 State-Cowden-Anderson is located 200 feet south and 3,630 feet west of SE cor. Section 46, Block 30, or one location west of No. 10. Gulf Production Co. added No. 32 J. T. McElroy, 200 feet south and 3,670 feet west of NE cor. Section 201; No. 33, 200 feet south and 4,290 feet west of same corner; No. 34, 771 feet south and 3,300 feet west of same corner; and No. 35, 771 feet south and 3,960 feet west of same corner. Gulf's No. 16 J. T. McElroy was completed for 1,167 bbls. after a 200-quart shot at 2,781-2,880 feet. Landreth's No. 6, north offset to this well, flowed 945 bbls. the first 17 hours after a 240-quart shot at 2,785-2,910 feet and Tidal Oil Co.'s No. 1 University-I, north offset to Landreth's No. 6, was good for 700 bbls. initial after a couple of shots, 130 and 200 quarts respectively, placed at 2,825-2,911 feet.

Other Completions

Carl Cromwell & Pickrell's No. 11 University, half mile north of the strip, topped pay at 2,782 feet and flowed 240 bbls. in 10 hours while drilling at 2,810 feet; No. 12, west of No. 11, flowed 1,237 bbls. from 2,785-3,007 feet and will be shot.

Simms & Atlantic's No. 5 University-C, SW cor. E half NW, Section 47, north offset to Cromwell's No. 11, was flowing 55 bbls. an hour at 2,785-2,975 feet; No. 3-C, two locations north of No. 5, was still flowing 750 bbls. at 2,792-2,915 feet and shut down.

Tidal Oil Co.'s No. 6 University-F, SW NE NE, Section 46, topped pay at 2,847 feet and started flowing at 2,860 feet but no estimate of its rate was available. Church & Weekley's No. 3 University, NE SE SW, Section 39, a location north of No. 1, swabbed and flowed 500 bbls. while drilling at 2,948 feet in pay topped at 2,867 feet.

Upton County's big well is Gulf Production Co.'s No. 2 J. F. Lane, SW cor. SE SW Section 3, G. C. & S. F. Survey, offsetting Prairie Oil & Gas Co.'s No. 2 Allie Lane to the east and nearly offsetting The Texas Company's No. 1 Perry to the north. It topped the gray lime at 1,863 feet and the pay at 1,956 feet. It started to fill up at 1,956 feet and began flowing steadily at 1,964 feet, present total depth. During the first hour this well is estimated to have flowed 300 bbls. and then was pinched in to 80 bbls. an hour due to lack of pipe line outlet. This performance is rather remarkable under any circumstances but especially so in view of the fact the well is offset on two sides by comparatively light producers. However, such a condition is not unusual in this lime area. The west offset, Prairie's No. 2 Allie Lane, was completed recently for 292 bbls. at 1,965-2,045 feet and the south offset, The Texas Company's No. 1 Perry, was good for 337 bbls. at 2,051 feet several weeks ago. The Gulf's first well on this tract, situated to the northwest diagonally across the Prairie's quarter section, was an 1,800-bbl. completion so the prospects for another excellent pool in this area are exceedingly bright. The pool just to the northwest of this new one, covered by Roxana on the Bowen land, Dixie on the Burleson, Texas-Pacific and Prairie on the Lane, has been the best in Upton County so far, and this southeast extension looks even better. Water troubles are not so bad as they are farther northwest, and the production seems to hold up much better.

Tidal Oil Co., however, seems to be out of the money with its west offset to The Texas Company's No. 1 Perry. This well topped the pay at 1,958 feet and after a 40-quart shot from 1,965-2,042 feet made only 15 bbls.

Pecos County Curtailed

Pecos County production is being held down to less than 5,000 bbls. pending completion of additional pipe lines. Saturday's output amounted to 4,089 bbls. with No. 2-B, a potential 200-bbl.-an-hour well, shut in entirely and all others pinched in under one-quarter and three-sixteenth inch chokes. Allsman & Bell's No. 1 River Bed gauged 165 bbls. Saturday. Marland Oil Co.'s offset was drilling at 200 feet and Mid-Kansas & Transcontinental's diagonal northwest offset was rigging up machine, moved from No. 4 Yates-A. This is the only drilling well under way on the Mid-Kansas property, Nos. 7 and 8 Yates-A being locations only.

An important location was made during the week by Gulf Production Co. just northwest of the Yates Pool near'y a mile from Mid-Kansas' No. 1 Smith-Taylor. It is No. 1 Smith, 150 feet out of the NE cor. of Section 28, Block 194, and if successful will call for offsets by Mid-Kansas and also by the California Co. The latter concern's semiwildcat in Section 34, about half a mile north of production, was repairing boiler Saturday at 465 feet. The joint test of McMan Oil & Gas Co. and Marland Oil Co. located a mile and a quarter still farther northwest was rigging up. These three extension tests will tell much of the Yates Pool's story and if they bear out the surface geology as other wells have they will cause a lot of drilling, and may prove this field to be the greatest in West Texas.

Locations for the third and fourth tests around P. H. Williams' No. 1 L. P. Powell in Crockett County, a mile south of the World Pool, were announced this week. Humble & Marland were first to offset it, their acreage lying to the north. Then Gulf Production Co. started digging a cellar to the northeast, and this week the Taylor-Link Oil Co. of San Angelo and the Kirby Petroleum Co. started a joint test in the NW cor. of Section 52, Block BB, E. L. & R. R. Survey, in a 14-acre tract recently purchased from Frank M. Greene of Fort Worth. Greene was one of the original stockholders in the World Oil Co., which opened the Crockett County Pool. The Williams well continues to hold up better than could be expected, having pumped 597 bbls. in 20 hours last Friday, with four hours off. The fourth test is Williams' No. 2 Powell, 510 feet west of No. 1 or 150 feet south and 660 feet west of NE cor. Section 53.

Winkler County

In western Winkler County, Skelly Oil Co.'s No. 1 Leeman finally reached the lime, according to accepted correlations, at 5,046 feet or 2,095 feet below sea level. The pay in the Hendricks Field is found about 100 to 200 feet below sea level. The Skelly test was drilling close to 5,100 feet at latest report and is apparently trying for a depth record now held by Dixie Oil Co.'s No. 1 Hershensen, on the western line of Pecos County, which stopped at 5,354 feet.

A Reeves County well reported some oil in the hole this week, but its importance is hard to judge at this time. World Oil Co.'s No. I Duff, located 990 feet west of the west line of Section 2, Block 2, H. & G. N. Survey, and 1,500 feet north of the south line of the R. S. Johnson Survey, has a show of gas and 6 bailers of oil and a hole full of sulphur water, 2,648-50 feet, total depth 2,780 feet. It is preparing to run 6-inch casing. This well is about 3½ miles southeast of Dixie Land Syndicate's (Ira Bell's) No. 1 Oakes, which was drilled to 4,512 feet in 1925, and which pumped a little oil from approximately the same depth as the World well. This is probably the Delaware sand, which has been almost too fine to produce commercially where found in this vicinity.

In North Texas, Eastland County's Ramsower Pool received a good addition during the past week when McLester Oil Co.'s No. 2 Pete Thorp, offsetting Belva Oil Co.'s No. 1 Goode, came in for 800 bbls. at 3,686-91 feet. It also had 3,500,000 feet of gas at 3,682-86 feet. The next well due in this pool is probably West Adams Petroleum Co.'s No. 3 Ramsower, which is drilling below 3,440 feet. Same company's No. 4 is also drilling below 2,185 feet, and Root and others' No. 2 Watson, 50 feet from No. 1, is drilling below 3,315 feet. Belva Oil Co. has a rig up for No. 2 Goode, and McLester Oil Co. has a location for No. 3, north of No. 1.

In northwestern Eastland County, Transcontinental Oil Co.'s No. 1 Weddington proved a disappointment. With surface elevation of 1,499 feet it drilled through the sandy lime pay found in

WILDCAT OPERATIONS IN WEST TEXAS

Week Ending July 9

Company, Farm and Location—	Remarks—
ANDREWS COUNTY	
Calvin & Bell's No. 1 Ratliff & Bedford, C NE Sec. 16, Blk. A-54	Rig.
J. S. Cowden's No. 1 Ratliff & Bedford, C SE Sec. 5, Blk. 73, Public School Land	Rigging up.
Sartain Oil Co. et al's (was Deep Rock Oil Co.'s) No. 1 W. J. Harris, C SE Sec. 12, Blk. A-46, Public School Land	Shut down 100 ft.
C. B. McKennon's (was Neff et al's) No. 1 J. S. Means, C SE Sec. 12, Blk. A-35, Public School Land	Spudded 30 ft. and shut down.
A. G. Carter & Zweifel's No. 1 Cowden, C SE Sec. 18, Blk. A-52, Public School Land Sur., elev. 3,156 ft.	Top salt 1,375 ft.; shut down for orders 3,500 ft.
Maer & Staniforth's No. 1 W. B. Taylor, C SE Sec. 15, Blk. A-42, Public School Land Sur., elev. 3,215 ft.	Top salt 1,650 ft.; little gas from 3,010 ft.; total depth 4,206 ft.; contract completed.
BORDEN COUNTY	
J. L. Kennedy's No. 1 J. S. York, SE cor. Sec. 322, Blk. 97, H. & T. C. Sur.	Shut down for orders 1,000 ft.
Stivers et al's No. 1 Snodgrass, C NW Sec. 475, Blk. 97, H. & T. C. Sur.	Shut down 3,248 ft.; bailer in hole.
BREWSTER COUNTY	
McPhail & Kemper's No. 1 Brown, C Sec. 43, Blk. WJC-8, T. C. R. R. Sur.	Location.
McPhail & Kemper's No. 1 McIntyre, SE cor. Sec. 59, Blk. 352, 7 mi. S of Alpine	Drilling 320 ft.
COKE COUNTY	
Danciger O. & R. Co.'s No. 1 Mrs. Byrnes, Clinton Sur.	Shut down for casing 602 ft.
Lipan Oil Co.'s No. 1 S. M. Conner, Sec. 71, Blk. 2, H. & T. C. Sur.	Shut down 1,215 ft. for 10-in.
CONCHO COUNTY	
Harry Adams et al's No. 1 Price, C SW Sec. 73, Blk. 71, Alex Gregg Sur. Elev. 1,918 feet	Drilling 1,500 ft.
Associated Oil Co.'s No. 1 Sam Waring, Sec. 2,035, J. W. Godhardt Sur.	Drilling 730 ft.
The Exploration Co.'s No. 1 Hartgrove, Blk. 240, J. Schouch Sur. Elev. 1,718 feet	Shut down 1,930 ft.
CROCKETT COUNTY	
George Anderson and Marland Oil Co.'s No. 1 University	Rig.
V. T. Bolin & Co.'s No. 1 P. C. Coates, NW cor. SW Sec. 4, Blk. 2, I. & G. N. Sur.	Shut down 2,110 ft.
J. K. Hughes' No. 2-B Powell, Sec. 63, E. L. & R. R. Sur., Elev. 2,783 feet	Fishing for 18 joints 8-in.; total depth 2,535 ft.; shut down.
Magnolia Petroleum Co.'s No. 2 Shannon	Show oil 2,385-90 and 2,992 ft.; total depth 4,100 ft.; fishing 20 joints 8-in. casing.

(Continued on Page 79)

Moody Oil Corp.'s No. 1 Dyer at 3,842-77 feet, but found only a trace of oil. From 3,877-97 feet it had black lime and at the latter depth a trace of oil and water. It will probably be plugged back to the gas sand at 3,798-3,806 feet, where it had an estimated 25,000,000 feet of gas. Moody Oil Corp has built a new rig for No. 1 McClelland, old gasser east of No. 1 Dyer, and if deepening to the Dyer pay is successful the hopes of a good field in this locality will be revived.

In Brown County, northeast extension of the Fry area, Forrest Oil Co.'s No. 4 Smith flowed 230 bb'ls. at 1,326-76½ feet.

NORTH CENTRAL TEXAS ESTIMATED PRODUCTION
Week Ending July 9, 1927

Ranger district—	July 2	July 9
Brown County	21,900	21,410
Callahan County	4,185	3,945
Coleman County	1,150	915
Comanche County	1,530	1,660
Palo Pinto County	430	560
Ranger	9,930	8,760
Shackelford County	7,795	6,230
Stephens County	9,900	10,045
Total Ranger district	56,820	53,525
Wichita Falls district—		
Archer County	27,585	27,380
Baylor County	90	80
Clay County	710	700
Cooke County	4,205	4,640
Jack County	615	660
Montague County	12,120	11,805
Throckmorton County	2,100	1,855
Wichita County	31,090	31,050
Wilbarger County	13,095	13,075
Young County	10,940	9,785
Total Wich. Falls district	102,550	101,030
Total North Central Texas	159,370	154,555
West Texas district—		
Big Lake Field	24,675	23,942
Crane County	61,935	62,551
Crockett County	840	1,401
Ector County	15	100
Garza County	5	5
Glasscock County	40	34
Howard County	2,895	3,175
Jones County	1,915	1,864
Loving County	25	20
Mitchell County	3,764	3,852
Pecos County	10,034	4,478
Scurry County	20	21
Upton County	20,185	21,140
Winkler County	1,310	1,278
Total West Texas district	127,658	123,861
Grand total North and West Texas	287,028	278,416
Decrease		8,612

Summary of Uncompleted Wells in Three Counties of West Texas

	Church-Fields	Winkler County	Upton County
Rigs	23	1	3
Drlg. to 1,000 ft.	11	0	3
Drlg. 1,000-2,000	6	9	6
Drlg. 2,000 plus	16	4	2
Cemented & S. D.		4	0
S. D. or fishing	3	0	4
Making oil	8	0	1
Drlg. wildcats	1	8	5
Total	68	26	18

NORTH CENTRAL TEXAS COMPLETIONS

Brown County

Curry and others' No. 6 Pickett made 5 bbls. of oil after a shot at 1,268-81 feet. Empire Gas & Fuel Co.'s No. 1 Williams was a failure at 2,400 feet. Humble Oil & Refining Co.'s No. 19 Hickman, found pay at 1,220-40 feet and was plugged back to 1,241 feet making 12 bbls., total depth 1,260 feet. Inland Oil Co.'s No. 1 Willis, was a duster at 1,350 feet. McLester Oil Co.'s No. 9 Clark flowed 20 bbls. after a shot at 1,185-1,215 feet. Moore's No. 1 Wright was dry at 1,335 feet. The Texas Co.'s No. 70 Lowe made 50 bbls. from sand at 1,287-1,309 feet, total depth 1,131 feet; No. 86 also made 70 bbls. at 1,253-64 feet. Wentz Oil Corp.'s No. 8 Shore had sand at 1,339-50 feet and made 49 bbls.; No. 22 Shore made 250 bbls. at 1,325-39 feet; No. 23 found sand at 1,321-40 feet and made 150 bbls.

Forrest Oil Co.'s No. 4 Smith made 230 bbls. from sand at 1,326-36½ feet. Humble Oil & Refining Co.'s No. 1 Hickman found sand at 1,212-26 feet and made 10 bbls. Root and others' No. 5 Pugh was a duster at 1,331 feet. Sinclair Oil & Gas Co.'s No. 9 Shore was shot with 30 quarts at 1,258-68 feet and was dry and abandoned at 1,404 feet. The location of Smith Oil Co. and others' No. 1 Smith was abandoned. The Texas Company's No. 19 Hickman made 26 bbls. at 1,162-92 feet, total depth 1,194 feet; No. 77 Lowe had sand at 1,275-95 feet and made 70 bbls.; No. 78 also found sand at 1,258-78 feet and made 73 bbls. Wentz Oil Corp.'s No. 26 Shore was a failure at 1,360 feet. Daniels & Kennard's No. 1 McCollock estate was also a duster at 945 feet.

Callahan County

Fallin and others' No. 1 McCandlies was a failure at 1,000 feet. So was Southern Petroleum Exploration Co.'s No. 1 Smart at 838 feet. Valley Oil Co.'s No. 4 Ramsey was a duster at 458 feet.

Coleman County

Burke, Greis & Gwinnup's No. 1 Riley was a duster at 2,160 feet. Marland Oil Co. and Pennok Oil Co.'s No. 1 Lobstein was a failure at 2,013 feet. White Eagle Oil & Refining Corp.'s No. 2 Casey was dry at 1,841 feet. So was Hoffer Oil Corp.'s No. 1 Cameron at 1,632 feet. Wilcox Oil & Gas Co.'s No. 1 Bough was dry and abandoned at 1,505 feet.

Monroe Production Co.'s No. 1 Sealy & Smith was dry at 1,195 feet.

Comanche County

Hickey's No. 1 Mooney was a failure at 1,640 feet.

Eastland County

Lowe, Delaney & Carter's No. 1 Barnett made 785 bbls. of oil and 4,500,000 feet of gas at 2,958-3,030 feet after it was shot. Root and others' No. 1 Thorp made 18,000,000 feet of dry gas at 3,534-40 feet. Shadbolt & Creighton's No. 1 Blackburn was a failure at 1,405 feet. So was Rinehart and others' No. 1 French at 1,315 feet. Star & Kiser's No. 1 Gilliland was a duster at 1,415 feet. Warren & Hays Co.'s No. 1 Brandon was also a duster at 434 feet. No. 2 Hatchett was dry and abandoned at 835 feet.

Lampasas County

Roeser & Pendleton's No. 1 Bunch was dry and abandoned at 3,000 feet.

Palo Pinto County

Godley Oil & Gas Co.'s No. 1 Edgin was a failure at 1,480 feet. So was No. 1 Holt estate at 1,470 feet.

Shackelford County

Brann's No. 1 Manley was dry and abandoned at 2,256 feet. Ceton Oil Corp.'s No. 1 McLemore was a failure at 800 feet. Gwinnup and others' No. 1 Green, Section 65, was a duster at 1,802 feet. McGinley and others' No. 1 Reynolds was dry at 1,503 feet. So was Ross' No. 2 Poindexter at 1,506 feet. Overlees' No. 1 Smalley was temporarily abandoned at 1,190 feet. Tannehill Oil Co.'s No. 7 Matthews, Section 58, pumped 25 bbls. from sand at 1,039-47 feet. Humble Oil & Refining Co.'s No. 3 King was a failure at 2,002 feet.

Stephens County

Clark's No. 1 Riddle made 62 bbls. of oil at 1,835-55 feet. Mid-Kansas Oil & Gas Co.'s No. 4 Richardson made 50 bbls. initial from sand at 2,712-27 feet after a 60-quart shot, total depth 4,050 feet.

WEST TEXAS COMPLETIONS

Crane County

Carl Cromwell & Pickrell's No. 6 University was completed at 2,760-2,980 feet and made 800 bbls. after it was shot; No. 7 University had pay at 2,773-3,005 feet and made 750 bbls. after a 400-quart shot at 2,792-2,990 feet. Eastland Oil Co. and Collett's No. 5 University was flowing 1,718 bbls. from sand at 2,816-2,950 feet; No. 7 was also flowing 3,729 bbls. at 2,810-2,945 feet.

Landreth's No. 4 State found top pay at 2,781 feet and made 840 bbls. at 2,821-2,938 feet after a 230-quart shot, total depth 2,938 feet; No. 5 found sand at 2,750-2,908 feet and was flowing 567 bbls. of oil after it was shot. Magnolia Petroleum Co.'s No. 6 O'Keefe-University had sand at 3,000-37 feet and made 168 bbls. after a shot. Simms Oil Co. and Atlantic Oil Producing Co.'s No. 2 University-D had sand at 2,797-3,000 feet and flowed 500 bbls. after first shot, 496 bbls. after second shot and 220 bbls. after the third shot.

Tidal Oil Co.'s No. 5 University-F was flowing 1,550 bbls. at 2,835-2,940 feet; No. 1-I found sand at 2,780-2,931 feet. This well was shot twice, first with 130 quarts and next with 200 quarts at 2,825-2,911 feet and made 700 bbls. of oil.

Crockett County

Cumberland Oil & Gas Co.'s No. 1 Couch was a duster at 3,165 feet. Magnolia Petroleum Co.'s No. 2 Shannon was also a failure at 4,100 feet. P. H. Williams' No. 1 L. P. Powell averaged 675 bbls. at 2,575-91 feet. World Oil Corp's No. 1 Schneeman, Jr., had a hole full of sulphur water at 2,490 feet and was abandoned at 2,575 feet.

Howard County

Magnolia Petroleum Co.'s No. 3 Sloan Chalk had sand at 1,545-1,707 feet and swabbed and flowed 520 bbls. after shot; No. 5 Mary Chalk was flowing 135 bbls. at 1,668-1,707 feet. Marland Oil Co.'s No. 1 H. R. Chalk-C, was a duster at 1,717 feet; No. 1 H. R. Clay-D was also a failure at 2,685 feet. Owens & Sloan's No. 1 John Roberts was swabbing 30 bbls. after a shot at 1,848-1,928 feet.

Jones County

Mid-Continent Petroleum Corp.'s No. 1 L. H. Evans was dry and abandoned at 3,110 feet. So was the World Oil Co.'s No. 1-L E. C. Boyd at 3,040 feet.

Mitchell County

California Company's No. 3 C. C. Adams, Lease 3, found top pay at 2,970 feet and made 18 bbls. initial. It was shot with 300 quarts and flowed 89 bbls. from sand at 2,950-3,069 feet, total depth 3,075 feet; No. 1 Dock Handley had top pay at 2,930 feet and was swabbing 23 bbls. After a 210-quart shot it made 75 bbls. initial from total depth 3,075 feet. Paul Teas' No. 1 Ed Strain was plugged back from total depth 3,510 feet to 1,700 feet and was shot with 210 quarts at 1,675-1,700 feet. It is now swabbing 3 bbls. of oil and 75 bbls. of water.

Pecos County

Allsman & Bell's No. 1 Pecos River Bed made 181 bbls. at 970-1,070 feet. Seventy-five Oil Co.'s No. 1 F. A. Perry was a failure at 3,000 feet. So was Texon Oil & Land Co. and Marland Oil Co.'s No. 1 Blakesley at 2,360 feet. The California Company's No. 1 Union Land Co. was flowing sulphur water at 2,178 feet and abandoned at this depth.

Reagan County

Big Lake Oil Co.'s No. 17-B University was flowing 484 bbls. from sand at 2,860-85 feet; No. 37-A pumped 85 bbls. at 2,865-90 feet; No. 121 had sand at 2,860-87 feet and was flowing 1,200 bbls.; No. 123 was also flowing 400 bbls. at 2,932-50 feet. Tidal Oil Co.'s No. 1 University found a hole full of sulphur water at 3,058-65 feet and is plugging to abandon at the total depth of 3,082 feet.

Runnels County

Moore & Bell's No. 1 Ferguson was temporarily abandoned after spudding.

Upton County

Beatty and others' No. 1 J. F. Lane was dry at 3,550 feet. So was Dixie Oil Co.'s No. 13 E. S. Hughes at 2,260 feet. W. W. Donnelly and Marland Oil Co.'s No. 1 University was a duster at 3,780 feet. Independent Oil & Gas Co.'s No. 71 Taylor was a failure at 3,250 feet. Prairie Oil & Gas Co.'s No. 2 Allie Lane was plugged back from 2,052 feet and made 292 bbls. of oil from sand at 1,965-2,045 feet. Tidal Oil Co.'s No. 1 Burleson had sand at 1,958-2,042 feet. It was shot with 40 quarts at 1,965-2,042 feet and was cleaning out and flowed 15 bbls.; No. 1 Hughes found top of the pay at 2,296-2,301 feet and flowed 300 bbls. several weeks ago then quit and made 50 per cent sulphur water. The well was plugged back to 2,298 feet and pumped 35 bbls. of oil and 70 bbls. of sulphur water.

Ward County

Marland Oil Co.'s No. 1 J. Sealy was a failure at 3,506 feet.

WICHITA DISTRICT COMPLETIONS

Archer County

Atlantic Oil Producing Co.'s No. 5-D Wilson was completed in sand at 1,543½-46½ feet making 35 bbls. of oil and 25 bbls. of salt water. Kruger & Staley's No. 4 Turbeville made 15 bbls. initially at 1,483-90 feet. McCarty Oil Co.'s No. 1 Lowry was dry and abandoned at 605½ feet. Roxana and Sun Oil Co.'s No. 2-B Farmer was dry and abandoned at 1,605 feet.

Jack County

Seaboard Oil & Gas Co.'s No. 1 Jackson was dry and abandoned at 2,502 feet.

Clay County

Grebin and associates' No. 1 Prescott was dry and abandoned at 1,500 feet.

Cooke County

Camp Heydrick and Oil Operators Trust's No. 6 Kleiss was shot with 10 quarts at 1,663-92 feet and had an initial production of 175 bbls. Same operators' No. 7 Kleiss was shot with 5 quarts at 1,627-41 feet and responded with 115 bbls. initially. Fain and McGaha Oil Corp.'s No. 1 Pybas and Benford was dry and abandoned at 2,500 feet. Kewanee Oil & Gas Co.'s No. 1 Timms and others-A made 100 bbls. initially from 1,139-1,230 feet. Oil Operators Trust's No. 6-A Luke was shot with 20 quarts at 1,600-25 feet and is doing 130 bbls. Pure Oil Co.'s No. 1 Embry

(Continued on Page 144)

Late News from the Fields

NEW DEEP POOL

CASPER, Wyo., July 12.—The Continental Oil Co.'s deep well, in the Big Muddy Field, Section 8-33-76, found the first member of the Dakota sand at 4,300 feet. In 15 feet of sand the well is making an estimated production of 1,000 bbls. This opens a new deep pool in that field.

OKLAHOMA

The Seminole Field in Oklahoma continues to climb, and on Tuesday morning of this week produced 456,114 bbls. from 585 wells. The production for the week end was divided by pools as follows:

Pool—	July 10	July 11	July 12
Bowlegs	186,253	188,583	188,068
Little River (1-7-6)	12,767	12,756	12,541
Earlsboro	113,239	121,087	125,068
Seminole	95,373	94,041	96,498
Searight	33,288	33,677	33,939
Totals	440,920	450,144	456,114

The Amerada Petroleum Corp.'s No. 1 Cowden, SE cor. SW Section 4-9-5, an old well which went dead and was shot with 20 quarts flowed 7,678 bbls. the first 20 hours after the shot.

There were several very light wells reported for the Seminole area among them: Indian Territory Illuminating Oil Co.'s No. 1 Barnett, NW cor. SW Section 24-8-6, which has 400 feet of oil in the hole from the Wilcox sand found 4,444-47 feet. This well is a direct offset to the Prairie Oil & Gas Co.'s No. 1 Gahagan, which is a good well. Indian Territory Illuminating Oil Co.'s No. 11 Livingston, NE cor. NW NW Section 15-8-6, found the second pay of the Wilcox sand 4,169-72 feet, and swabbed 129 bbls. The Gypsy Oil Co.'s No. 8 Waker, SE cor. NW SW Section 15-8-6, swabbed 220 bbls. from sand 4,390-4,408 feet.

While the above wells have a very limited natural production, their flow by the use of air-lift equipment will very likely be stimulated, as this is true of many of the Bowlegs wells.

Two good wells were recorded in the Earlsboro region: J. E. Crosbie and others' No. 2 Bryant, NW cor. SW NW Section 9-9-5, is flowing 130 bbls. an hour from the Wilcox sand 4,290-98 feet; and The Texas Company's No. 1 Rogers, SE cor. SE Section 5-9-5, had the Wilcox sand at 4,353-73 feet, and is flowing 170 bbls. an hour. This is a quarter mile extension to the pool, and opens new territory.

WEST TEXAS STOCKS

FORT WORTH, Tex., July 12.—West Texas stocks increased 624,035 bbls. during June to a new high figure of 3,721,735 bbls. July 1. This increase is less than that of May, however, which was 1,043,900 bbls. The Humble had more than one-third with 1,448,190 bbls. in storage. The Gulf was second with 628,029 bbls., and Marland third with 475,695 bbls. Big Lake Oil Co., Reagan County Purchasing Co., Magnolia, and Southern Crude followed in order named. Total storage capacity July 1, was 6,080,921 bbls.

West Texas production declined 87,053 bbls. in June as compared with May, the

(Continued on Page 145)

Wildcat Operations Feature Panhandle

Completions Past Week Extended Producing Territory. Gray County Well 2 Miles From Other Production

By James H. Dameron
Staff Correspondent, Texas Panhandle Fields

AMARILLO, Tex., July 11.—Important completions in wildcat and semiwildcat territories, some of which extended production of pools, and a few developments in the proven territory were the outstanding field developments of the Panhandle during the week. At the same time crude shipments from the field were increasing to improve the storage and pipe line congestion of the field and aid in improving the crude situation in general in Panhandle.

Gray County, which leads the Panhandle counties in wildcat and semiwildcat work, was in the limelight throughout the week. Most interesting of developments there was the completion of a 25-bbl. wildcat in the central eastern part of Gray County. The well was Gladys Gray Oil Co.'s No. 1 Colebank-Morse, Section 65, Block 25, H. & G. N. Survey, which is making 25 bbls. from granite wash at 2,429-2,504 feet. The well was good for 4,000,000 feet of gas at 2,200 feet.

The nearest production is approximately 2 miles away. Three miles to the west and a little south, the Nabob well, in Section 68, is a good producer. Approximately 2 miles to the southwest the Resaul Petroleum Co.'s No. 1 Huselby, in Section 55, is making 30 bbls. daily but has not been completed. A little more than 2 miles south and a quarter of a mile east, the Travis and associates' No. 1 came in as a sensational producer some time ago. Its production at present is around 20 bbls. daily. About 1¼ miles to the north of No. 1 Colebank-Morse, there is a 3,100-foot dry hole.

West of Pampa Pool

About 2 miles west of the Wilcox Pampa Pool, The Texas Company completed a 260-bbl. well in No. 1 Barrett, Section 130, Block 3. The well is in territory found productive by a couple of other wells some time ago. Prairie Oil & Gas Co. got a good well in extension territory to the east of the same pool. It was between the pool and the Gulf Production Co.'s No. 1 Saunders, SE SW, Section 40, which was completed making better than 3,000 bbls. Atlantic Oil Producing Co.'s No. 1 Combs and Worley, NW NE, Section 39, Block 3, and the diagonal southeast offset to the Gulf company's well appears to be a failure. The test was shot with 560 quarts at 2,947-3,050 feet without results. Total depth of the hole is 3,085 feet. The Gulf company's well appeared to be a failure until after it was given a heavy shot. North of Kings Mill, Empire Gas & Fuel Co.'s No. 1 Wall, Section 161, Block 3, was completed as a 20,000,000-foot gas well at 2,640-2,710 feet.

About 10 miles north of Alanreed in Gray County, Amos and associates' No. 1 Crews, Section 9, Block 25, had a showing of oil at 2,700 feet. The test is in rank wildcat territory. Late Monday the bit was pounding through red granite wash at 2,900 feet and no oil was in the hole.

One of the largest wells to be completed last week was Empire Gas & Fuel Co.'s No. 4 M. P. Co. fee, Section 91, Block 4, in the Roxana Pool of Carson County. The well made 1,100 bbls. initially. Another good well was completed in the McIlroy Pool in southeastern Hutchinson County when McIlroy and associates' No. 1 Ellis Cockrell, Section 4, Block B-3, was completed in lime at 2,975-3,030 feet making 1,440 bbls., 3 per cent water.

Alamosa Oil Co.'s No. 1 Sanford, Section 83, Block 46, H. & T. C. Survey, in the Sanford area of Hutchinson County, had the pay at 2,962-67 feet and at 2,983-93 feet and has 1,800 feet of oil in the hole. Storage is being erected and the well is to be swabbed. In the same area, Phillips Petroleum Co.'s No. 1 Sanford (McMillan), Section 82, Block 46, had 60,000,000 feet of gas from 2,687-2,750 feet and caught fire. It was shot out and completed as a gas well.

Northwest Trend Attractive

The northwest trend of the field was attractive to Panhandle operators throughout the week as a result of developments in Moore, Dallam and Hartley Counties. A. D. Morton & Co.'s No. 1 Reeder, Section 191, Block 3-T, T. & N. O. Survey, was plugged back and shot with 120 quarts at 3,372-3,408 feet, made one head and then bridged. Plugging back did not cut off the salt water encroachment. However, the water menace has not proved serious. The well made one 70-bbl. head while the hole was being cleaned 20 feet off bottom. Sunday the well made 133 bbls. in 11 hours with 14 feet of cavings in the hole. Before the shot the well averaged 126 bbls. daily for a week. It is being cleaned out.

To the northwest, the test of Wood and Wood, No. 1 Capitol Lands, Section 19, Block 17, had a slight show of oil at 3,320-30 feet and is to be tested. The latter test has further stimulated interest in the northwest trend of the field on up to the Oklahoma Panhandle. In Hartley County, Deep Rock Oil Co.'s No. 1 Lyman and Balfour, Section 9, Block 2, gauged 13,000,000 feet of gas at 3,100-3,280 feet. It had been estimated to be making 24,000,000 feet of gas.

Acreage trading to the northwest of the Panhandle is fairly brisk. So far as could be learned no one company is aggressively buying in that general area. Probably more trading is going on in the South Plains country due south of the Panhandle Field proper.

One of the big deals of the week was the purchase by the Prairie Oil & Gas Co. of a 19,000-acre lease on the C. L. Kilgore ranch in Moore and Sherman Counties. The southern end of the Kilgore ranch is regarded as good potential gas territory because of the good gas showings found in a test drilled near the lease some time ago.

It is reported the Prairie company paid $140,000 for the lease on the property which will carry either a 50-cent or a $1 a year rental. Under the terms of the contract the Prairie company is to drill 10 wells on the lease within the next 10 years and one well is to be drilled by 1928. A well will cure the rental on the 640 acres it is drilled on.

Augments Gas Holdings

While 9,000 acres of the lease are considered as promising for oil tests the remaining 10,000 acres of potential gas acreage will greatly augment the Prairie company's vast gas acreage holdings in the Panhandle. That company, through a subsidiary company, is building a 217-mile line into the South Plains area and is interested in other Panhandle gas lines. The Prairie company, is by far, leading Panhandle producers in controlling gas acreage.

Field operations in the Panhandle have been declining steadily for months showing the efforts operators have been making to curtail drilling and production. The curtailment program is reflecting itself in the production of the field which has been declining for some time due partly to the lack of new producers to offset the decline in old wells. At the end of last week only 150 wells were drilling in the entire Panhandle area and 115 wells were shut down.

Production Declines

Production in the Panhandle decreased 2,785 bbls. during the past week when the fields daily average dropped to 116,255 bbls. The decline was general throughout the area with the exception of Carson County which showed a slight decrease. Production by counties follows:

County—	Bbls.
Carson	11,200
Gray	9,365
Hutchinson	94,120
Moore	100
Potter	30
Wheeler	1,440
Total	116,255
Total last week	119,040
Loss	2,785

Crude Movement Gains

Movement of crude out of the Panhandle is estimated to be steadily increasing. During the past week it was estimated that a little more than 100,000 bbls. daily was being moved from the field by tank cars and the two trunk lines. From July 1 to 7, both dates inclusive, 1,083 tank cars of crude were shipped out.

Three more Panhandle wells have been added to the list of Panhandle producers that have produced more than 500,000 bbls. of oil. Phillips Petroleum Co. and Prairie Oil & Gas Co.'s No. 4 Johnson Brothers, Section 69, Block 46, produced 557,000 bbls. of crude from October 22, 1926 to June 1, 1927. The Gulf Production Co.'s No. 6 Dial has produced 505,000 bbls., and the Cockrell McIlroy Oil Co.'s No. 1 Cockrell has produced well above 500,000 bbls. up to June 1. All three of the wells are in Hutchinson County.

Carson County

Empire Gas & Fuel Co.'s No. 4 M. P. Co. fee-A, Section 91, Block 4, I. & G. N. Survey, in the Roxana Pool, was the largest producer completed in the Panhandle during the week. It was shot with 80 quarts in lime and granite wash at 3,135-92 feet and is making 1,100 bbls. daily, flowing and by being agitated. Magnolia Petroleum Co.'s No. 3 Burnett estate, Section 115, Block 5, I. & G. N. Survey, was shut in as a 12,000,000-foot gas well at 2,600 to 2,930 feet, corrected depths. Marland Oil Co.'s No. 4 C. R. Garner, is a 220-bbl. well in lime pay at 3,115-93 feet. McMan Oil & Gas Co.'s No. 2 J. L. Noel, Section 198, Block 3, in the McConnell Pool, made 270 bbls. initial from lime and granite wash at 3,173 to 3,210 feet. Skelly Oil Co.'s No. 5 H. Schafer, Section 86, Block 3, I. & G. N. Survey, between the Roxana and McConnell Pools, made 175 bbls. initial from lime and granite wash at 3,121-41 feet. Vitek Oil Co.'s No. 1 C. R. Garner, Section 113, Block 4, I. & G. N. Survey, northwest of the Roxana Pool, was completed making 25 bbls., 5 per cent water.

Gray County

North of Kingsmill, Empire Gas & Fuel Co.'s No. 1 Wall, Section 161, Block 3, I. & G. N. Survey, was completed as a 20,000,000 foot gas well at 2,640 to 2,710 feet. Two miles north of the Travis well, Gladys Gray Oil Co.'s No. 1 Colebank-Morse, Section 65, Block 25, H. & G. N. Survey, is swabbing 25 bbls. daily from granite wash at 2,429 to 2,504 feet. The well is making 4,000,000 feet of gas from 2,200 feet. J. L. Lane's No. 1 A. Chapman, Section 19, Block 1, A. C. H. & B. Survey, in wildcat territory, was junked with the tools in the hole at 3,300 feet. The test had

(Continued on Page 142)

WILDCAT OPERATIONS IN PANHANDLE

Week Ending July 9, 1927

ARMSTRONG COUNTY

Company, Well, Farm Name, Section and Block—	Remarks—
Meadows et al's No. 1 E. D. Harrell, C Sec. 100, Blk. A-6, A. & G. Sur.	Rig; drlg. water well.
United Oil & Trust Co.'s No. 1 J. P. Reck, Sec. 162, Blk. 4, H. & G. N. Sur.	Spudded and temp. abd. at 298 ft.

BRISCOE COUNTY

C. S. Rice's No. 1 J. C. Anderson, SE cor. NW NW, Sec. 22, Blk. B-3, B. S. & F. Sur.	Fish., 1,600 ft.

CARSON COUNTY

Amatex Dev. Co.'s No. 1 E. S. Polling, Sec. 22, Blk. 2-Y.	Temp. abd., 1,950 ft.
W. A. Gamble's No. 1-A John Dies, 30 ft N of cen., Lot 7, Blk. 11, Panhandle Townsite, Sec. 69, Blk. 3, T. T. R. R. Sur.	Drlg., 1,340 ft.
Marland Oil Co.'s No. 1 Burnett-J, C NE NE Sec. 121, Blk. 5	Drlg., 3,165 ft; small spray oil 3,072-3,130 ft; salt water, 3,140-45 ft; dry granite wash, 3,245-88 ft; drlg., 3,487, hard black lime.
Marston Oil Co.'s No. 1 J. L. Noel	Pulling 6-in., 3,064 ft.
Navajo Oil Co.'s No. 1 E. S. Polling, Sec. 22, Blk. 2-Y.	Run. 8-in. pipe to 2,150 ft.
Stubblefield et al's No. 1 E. Cooper, SW cor. NE Sec. 5, Blk. 9, I. & G. N. Sur.	Set 8-in. pipe, 1,400 ft; drlg., 2,100 ft.
Vitek Oil Co.'s No. 1 J. H. Eller, NE cor. NW Sec. 200, Blk. 3	Spudded and S.D.

CASTRO COUNTY

Colorado O. & R. Co.'s No. 1 M. Siemons, SW cor. Sec. 78, Blk. M-17, B. S. & F. Sur.	Rig blown down.
Mystery Oil Co.'s No. 1 J. I. Crum, SE cor. NE Sec. 333, Blk. M-6, S. K. & K. Sur.	S.D., 510 ft. for casing.

CHILDRESS COUNTY

Brookins et al's No. 1 Mrs. Givens, 600 ft N and W of SE cor. Sec. 676, W. & M. W. Sur.	Spudded and S.D.
Hoover & Calloway's No. 1 O. L. Tucker, Sec. 786, Haggard Sur.	Spudded and S.D.
C. L. Sloane et al's No. 1 B. P. Smith, Sur. 49, F. P. Knott lands	S.D., 3,000 ft.

COLLINGSWORTH COUNTY

Harmon & Deems' No. 1 Wilson (Scott), Sec. 44, Blk. 21.	Loc.; temporarily abd.
Wischkamper's No. 1 fee, C SE Sec. 93, Blk. 16	100 ft. salt water in hole from 2,623., S.L.M.

COTTLE COUNTY

Exploration Co.'s No. 1 Richards	Spudded.
Sun Oil Co.'s No. 1 Tom Burnett, C NW SE, Sec. 6, Blk. L, S. P. R. R. Sur.	S.D., 2,590 ft. for orders.

DALLAM COUNTY

James et al's No. 1 fee, Sec. 9, 47½	S.D., 2,870 ft.
Wood Bros. et al's No. 1 Capitol Synd., Sec. 19, Blk. 17.	Drlg., 3,290 ft.
Marland Oil Co. et al's No. 1 Capitol Synd., Sec. 36, Blk. 18, Capitol Synd. land	S.D., 950 ft.

DEAF SMITH COUNTY

Julian & DeGrace's No. 1 Mrs. R. A. Hindley, Sec. 47, Blk. K-8	S.D., 520 ft. for casing.
Red Hill Oil Corp.'s No. 1 Barrett, Sec. 93, Blk. K-4	S.D., 710 ft.

(Continued on Page 85)

DUNN TOOLAGRAM

Fast ... Strong Easy to handle

DUNN SAFETY TUBING TONGS

OIL WELL DUNN TOOLS

Light weight enables easy handling. Ample strength insures perfect safety.

Sent prepaid for trial without obligation.

DUNN
MANUFACTURING COMPANY
OXNARD, CALIFORNIA

Mid-Continent Branch Warehouse
215 East Archer St. Tulsa, Oklahoma

Export Sales Office
150 Broadway, New York City

DUNN-SMITHTONG

Dunn "SmithTONG" Type

DUNN SAFETY TUBING TONG

Type "LN"

DUNN SAFETY *means* DONE SAFELY

Seminole Passes 450,000 Barrels Daily

Output Continues to Gain as Big Wells Feature Operations. Little Improvement Expected Until Field Declines

By J. L. Dwyer
Staff Correspondent, Oklahoma Fields

The heat, the aftermath of a holiday, and five new peaks for the output of the Greater Seminole Field marked the past week in the Oklahoma fields. As the production of that great oil field steadily increased until it exceeded 450,000 bbls. daily, the local officials of the oil industry are becoming reconciled that there can be no genuine improvement in conditions in the business until Seminole curls up and expires.

For the 24 hours ending at 7 o'clock Monday morning, this week, the production of the greater Seminole area totaled 450,145 bbls., while for the 24 hours ending Sunday morning, it was 440,928 bbls.

The reports of each new big well are treated by officers of companies (other than the owners) and by small producers with the same fervid enthusiasm that George Herman Ruth displays every time Henry Louis Gehrig uncorks a four-ply hit. Seminole is now producing over 50 per cent of the total output of the State, and very close to 20 per cent of the total daily production of the nation, and its peculiarities have been so numerous that little can be forecast about its future behavior. It has upset expectations so often that the man who asks "What is Seminole going to do?" is placed in the class with the individual who persistently inquires "Is it hot enough for you?"

The past week furnishes another instance of the irregularity of wells in this area when the Amerada Petroleum Corp.'s No. 1 Cowden, SE cor. SW, Section 4-9-4, which was completed May 18, with an initial production of 6,090 bbls. stopped flowing. It was given a shot of 20 quarts, and immediately started flowing at the rate of 450 bbls. an hour.

With 175,000 bbls. daily going into storage in the Oklahoma-Kansas territory, the crude market in Oklahoma and Kansas is firm, but to realize any real improvement in the situation it is going to be necessary to unscramble Seminole.

Abandon 10 Wells

The daily output of the field ranged from 432,000 to 442,000 bbls. last week, and the only hopeful sign is that about 10 wells were abandoned in various parts of the field. They were of course older wells and wells which were located upon the poorer parts of the structure, but they struck a refreshing note.

The Indian Territory Illuminating Oil Co.'s No. 1 House in Section 1-7-6, the Little River Pool, as it is being termed, is continuing to produce 12,000 bbls. daily. The Independent Oil & Gas Co. and Margay Oil Co.'s No. 3 O'Dell, in Section 4-9-5, the Earlsboro district of Seminole, is flowing better than 14,000 bbls. daily, and wells of a daily production of 1,000 bbls. command scant attention in times like this.

The completion of two dry holes one west of the old Seminole City Pool, and one offsetting a good producer in the Earlsboro area stopped the spread of production. The Barnsdall Oil Co.'s No. 1 Cudjo SE cor. NW, Section 31-9-6, has a hole full of water in the Wilcox sand 4,315-25 feet; and the Gypsy Oil Co.'s No. 1 D. Smith, NW cor. NE, Section 15-9-5, has found the fatal fluid in the Wilcox at 4,302-11 feet.

The wildcat well of T. B. Slick in Section 21-5-6, Pontotoc County, is still variously reported. Consensus of opinion reports this well as making 50 bbls. an hour pinched in. Estimates of the condition of the oil also vary, and it is stated to be 10 per cent water and 22 per cent b.s. It is producing from the Hunton lime found 2,555-2,693 feet, and is shut down for orders. This makes a very important discovery in a territory where little has been expected for many years. The acreage in this part of the State was pretty well taken up seven years ago, when drilling was started. The failure of the wells to find any appreciable body of sand in the district caused many of the major companies to release their holdings, and withdraw from active interest in the area. Whether they re-enter the region or not will naturally depend upon the fate of the Slick well.

The Roxana Petroleum Corp.'s No. 1 McCully, the first big well for Logan County, is still flowing around 3,000 bbls. and four additional locations have been staked, all upon the Roxana's block of leases. The well is in Section 30-19-4w.

West of Henryetta in Okfuskee County, the Riverland Oil Co.'s No. 1 Holmes, NE cor. NW NW, Section 30-11-11, had been making 700 bbls. daily from sand 3,610-38 feet, and suddenly increased to an output of 2,030 bbls. daily when the well was drilled deeper to a depth of 3,652 feet. This will revive interest in the Weleetka section.

Seminole Production

Production of the Seminole area for July 9 follows:

Bowlegs

Company and farm—	Wells	Prod.
Amerada:		
Rasco	8	11,520
Atlantic:		
Baker	2	3,393
Grayson	2	3,075
Jones	1	3,307
Barnsdall:	3	76
McNac	1	100
Murrow	1	450
Carter:		
Bowlegs	2	4,085
Harjoche	5	5,725
Hilly	1	2,655
McGelsey	1	.....
Walker	2	2,085
Wise	4	8,930
Empire:		
Lacy	4	5,255
Gypsy:		
Brown	1	95
Walker	7	4,750
Indep.-Marland:		
Coker	1	790
Ind. Terr.:		
Billington	2	2,206
Bowlegs	3	2,120
Davis	3	2,857
Fay	1	3,024
Goforth	9	9,515
Livingston	10	12,933
Walker	8	9,880
Wilmont	4	4,417
Work	1	.....
Youngblood	4	1,980
McColloch:		
Bowlegs	1	1,002
Mid-Continent:		
Baker	3	4,826
Bowlegs	1	515
Hutke	1	270
Minnehome:		
Bowlegs	4	3,898
Prairie:		
Gahagan	2	2,790
Harber	6	3,885
Whitney	2	910
Pure:		
Reed	13	24,705
Roxana:		
Taylor	4	4,055
Shaffer:		
Lacy	3	4,652
Sinclair:		
Adam	1	10
Bowlegs	1	.....
Ellen	1	1,830
Harjo	3	5,495
Jones	1	2,865
Taylor	1	2,555
Walker	3	5,110
Texas:		
Reed	4	5,175
Tidal:		
Harjoche	1	1,360
Total	147	181,331

Little Penn Pool

Indian Terr. Ill. Oil Co.:		
House	1	12,713

Earlsboro

Amerada:		
Anderson	4	5,265
Cowden	2	4,713
Barnsdall:		
Cudjo, C.	1	1,222
Davis, D.	1	.....
Davis, M.	1	.....
Gibson	2	5,145
Hearn	1	.....
Peter	2	3,335
Sebolka	1	3,315
Smith	1	168
Wasutke	1	3,262
Carter Oil Co.:		
Payne	1	5,085
Continental:		
Hollins	1	4,573
Crosbie:		
Bryant	1	2,325
Empire:		
Edmundson	1	7,552
Gypsy:		
Bora	1	.....
Earl	1	90
McFarland	2	122
Peter	2	720
Noble	1	5,322
State	4	3,497
Strain	1	17
Independent:		
Knapp	1	1,480
O'Dell	1	12,898
Sullivan	1	652
Inter-Ocean:		
Payne	1	488
Magnolia:		
Bryant	2	4,138
Holmsley	1	4,365
Lena	1	1,479
Simpson	1	3,508
Sparks	2	3,322
Mid-Continent:		
McCumber	3	4,200
Phillips:		
Graham	4	2,466
Philmack:		
Dobbs	2	60
Prairie:		
Baker	1	50
Davis	2	6,075
Stidham	3	10,795
Sinclair:		
Foreman	1	.....
Shallow production	28	3,175
Total	89	114,879
Carter:		
B. Carter	2	235
J. Carter	3	80
F. Carter	3	295
Creamer	1	20
R. Cudjo	4	1,330
W. Cudjo	2	320
Gilliland	1	475
Gilliland, W.	7	925
Knapp	3	1,277
Killing, M.	10	13,000
Killing, G.	4	2,445
Lukes	6	1,775
Simpson	2	350
Strother	3	3,790
Vierson	4	730
Amerada:		
Fixico	4	1,675
Killing	4	569
Rentie	4	1,366
Atlantic:		
Cudjo, N.	4	540
Barnsdall:		
Carter	9	4,132
Jones	4	1,680
Henry	1	20
Empire:		
Gross	2	1,945
Wilson	3	1,724
Gypsy:		
Butler	3	722
Carter	8	1,460
Cudjo	3	1,665
Fixico	5	170
Harjo	3	1,582
Wolf	7	907
Independent:		
P. Fixico	4	390
Harjo	2	262
Independent & Garland:		
T. Fixico	8	1,250
Independent & Interocean:		
Jones	4	900
Indian Terr. Illum.:		
Bowlegs	10	3,712
Gooden	4	521
Harjo	4	645
James	4	1,059
Marcey	1	0
Reed	3	48
Kingwood:		
Johnson	5	2,001
Magnolia:		
Franks	3	1,296
Mid-Continent:		
Rentie	9	1,440
Tayeche	7	515
Mid-Kansas:		
Pressley	1	62
Johnson	1	649
Phillips:		
Strothers	3	172
Philmack:		
Butler	3	4,900
Prairie:		
Gross	5	50
Mason	1	955
Spencer	1	15
Strother	8	2,225
Pure:		
Strother, A.	17	3,155
Strother B.	3	4,077
Roxana:		
Harber	2	410
Lashley	2	65
Sinclair:		
Carter	2	35
Cudjo, A.	6	1,578
Cudjo, B.	3	800
Dicey	1	575
Fixico	4	510
Slick:		
Cudjo	3	1,428
Franks	8	887
Giblet	1	1,571
Superior:		
Cudjo	4	1,878
The Texas Co.:		
Mayhue	1	240
Tidal:		
Carter	5	2,370
Fixico	8	945
Harjo, D.	1	1,650
Harjo, R.	7	205
Mahardy	3	1,105
Tayeche	2	1,395
Turman:		
Cudjo	4	1,344
Grisso	1	264
Jones	4	1,628
Total	301	97,416

Searight

Carter:		
Davis	5	6,415
Frazier	4	6,090
Kiker	1	40
Scott	1	40
Gypsy:		
Cudjo	2	482
Mid-Continent:		
Grayson	6	2,455
Soloche	2	1,910
Prairie:		
Cannon	1	15
Carter	1	10
Houck	1	15
Kincaid	8	3,425
Wiemer	1	20
Pure:		
Aldridge	2	3,085
Roxana:		
Strother	1	2,510
Sinclair:		
Polly	2	2,795
Twin State:		
Cudjo	1	1,195
Wilcox:		
Chupco	2	2,387
Total	41	33,889
Grand total	579	440,228
Shallow	29	3,185
Hunton	55	8,100
Wilcox	495	428,943

*Four hours flowing on the ground.

Carter County

Magnolia Petroleum Co. is building the rig for No. 4 Cox, SW cor. NW NW Section 15-2s-2w. Schermerhorn Oil Co. has the rig up for No. 4 Calvery, SE cor. SW Section 2-2s-3w. Wirt Franklin's No. 1 Carpenter, NE cor. SW Section 11-2s-3w, an old well, is drilling deeper at 3,710 feet. Schermerhorn Oil Co. and Roxana Petroleum Corp.'s No. 2 Williams, SE cor. NE NW Section 11-2s-3w, is drilling at 800 feet. Magnolia Petroleum Co.'s rig is up for No. 3 Morris, SW cor. NW Section 22-2s-3w.

Magnolia Petroleum Co.'s No. 8 W. Hardin, SW cor. Section 19-1s-3w, is making 10,000,000 feet of gas and 215 bbls. of oil from broken sand at 2,539-3,000 feet. The initial production was 349 bbls. Roxana Petroleum Corp.'s No. 2 Lyles, NW cor. SW NW, Section 11-2s-3w, was completed for 60,000,000 feet of gas from sand at 2,826-3,068 feet. Schermerhorn Oil Co. and Roxana Petroleum Corp.'s No. 1 Williams, SE cor. NW Section 11-2s-3w, made 258 bbls. from sands at 3,384-92 feet and 3,423-47 feet.

Creek County

Regal Oil & Gas Co.'s No. 17 Barnett, NE cor. SW SW Section 13-18-11, is spudding. Curtis Oil Co. has the rig on the ground for No. 1 Painkiller, NW cor. Section 30-18-11. O. M. Irelan has the rig on the ground for No. 2 Farley, SW cor. NE SE Section 13-17-10. Pontiac Oil Co. has built the rig for No. 6 Fulsom, CNL SW SW Secton 13-17-10. The rig is on the ground for No. 7 Fulsom, CSL SW SW Section 13-17-10. McCulloch Oil Co. has moved the rig out for No. 4 Joconton, SE cor. NW SE Section 13-17-10. J. H. Wright has the rig on the ground for No. 22 Tahkaney, CNL NW NW Section 24-17-10. F. A. Havel and others have the rig up for No. 1-A Ramsey, NE cor. SE Section 10-14-10. Sidwell Drilling Co.'s No. 1 Allen, SE cor. SW NW Section 11-19-7, is drilling at 500 feet. Empire Gas & Fuel Co. made location for No. 1 Bigpond, SW cor. NW Section 36-15-7.

H. U. Bartlett's No. 5 King, SE cor.

The age-old law of "supply and demand" has been violently asserting itself in the oil industry Its equally old companion, the law of "diminishing returns" is consequently working overtime at the financial crib

These laws can be only temporarily ignored or abused, without tremendous loss

Continuance of such loss is needless It can be stopped now by sound, sensible co-operation within the industry, without waiting for the slow destructive action of economic forces

Two essential remedies are:

Less production of crude
More cracking

And the complete conversion into gasoline of the skimmed crude is the logical way to take advantage of The Cracking Process

Universal Oil Products Company
Owner of the Dubbs Process
310 South Michigan Ave
Chicago, Illinois

SW SW Section 17-18-9, is producing 140 bbls. from the Dutcher sand at 2,963-97 feet. Curtis Oil Co.'s No. 1 Gray, SW cor. NW Section 21-18-9, is dry and abandoned in the Wilcox sand at 3,174-3,214. Snowden & Curtis' No. 1 Johnson, SE cor. NE Section 34-18-10, was shot with 60 quarts in the Red Fork sand at 2,090-2,130 feet and is making 30 bbls. Winemiller and others' No. 1 Oakhurst Townsite, Lot 35, Block 23, Section 6-18-12, was completed for 50 bbls. in the Hominy sand at 2,142-75 feet. C. G. Tibbens' No. 1 Colbert, NE cor. Section 8-18-12, is a dry hole at 2,383 feet in the Wilcox sand topped at 2,114 feet. Pontiac Oil Co.'s No. 3 Fulsom, SE cor. NW SW Section 13-17-10, produced 1,050 bbls. initial from the Dutcher sand at 2,470-2,510 feet. Elson & Detrick's No. 1 Dickson, SW cor. SE Section 19-17-10, had the Red Fork sand at 2,106-24 feet and made 20 bbls. after a 20-quart shot. C. G. Tibbens' No. 38 Unallotted, C N half S half Section 30-15-9, was completed for 180 bbls. in the Wilcox sand at 3,518-3,619 feet.

Grant County

Joe Lathrop and others made location for No. 1 Henn, SE cor. NE Section 35-28-3w.

Grady County

Nichlos and others made location for No. 1-A Spencer, NW cor. SW NE Section 25-5-8w. No. 4 Dryden, NW cor. SW SE Section 35-5-8w, is drilling at 1,010 feet. Stogner and others' made location for No. 3 Duke, NE cor. SE SW Section 35-5-8w. Location was made for No. 4 Duke, SE cor. SW Section 35-5-8w. John Graham has the rig timbers on the ground for No. 1 Steelman, NE cor. NW NW Section 16-5-7w. Magnolia Petroleum Co. made location for No. 2 Heathley, SW cor. NW NE Section 2-4-8w. Amerada Petroleum Corp.'s No. 2 Hicks, SW cor. NW SE Section 16-3-5w, Carter-Knox Pool, is rigging up to deepen from 1,727 feet.

Commercial Development Co.'s No. 1 Gerard, NE cor. NW Section 30-6-6w, has been abandoned at 3,106 feet. Stogner and others' No. 1 Fryear, SW cor. SE SE Section 14-5-8w, has been abandoned at 2,403 feet. Gypsy Oil Co.'s No. 1 Hogue, NE cor., Section 20-3-5w, was completed for 3,500,000 feet of gas in sand at 2,408-09 feet. Amerada Petroleum Corp. and W. H. Gant's No. 6 Hicks, SW cor. NE NE, Section 21-3-5w, had sand at 1,735-37 feet from which it is pumping 75 bbls.

Kay County

Vernon Oil & Gas Co. has dug the cellar for No. 1 Piper, NE cor. SE Section 19-29-1. Hazel Atlant Glass Oil Co.'s No. 1 McFadden, NE cor. SW SW NE Section 28-27-1, is spudding. Elk Producing Co.'s rig is being built for No. 1 Cunningham, NE cor. NW Section 2-25-2w. Marland Oil Co. and George Miller made location for No. 1 Chambers, NE cor. SW NE Section 9-25-2w.

Comar Oil Co.'s No. 2½ Horne, NE cor. NW, Section 8-28-1w, Braman Townsite Pool, after drilling to 1,595 feet and plugging back 5 feet has been abandoned. A. D. Morton, Dickey and others' No. 1 Gingerich, NW cor. NE SW Section 29-28-1w, drilled to 3,670 feet, plugged back to 3,230 feet and was abandoned. Marilenn Oil Co. and Phillips Petroleum Co.'s No. 1 Payne, SW cor. Section 17-27-1w, Blackwell Field, is dry and abandoned at 2,480 feet. Blackwell Oil & Gas Co.'s No. 1 Goodson, C NE NW Section 5-26-1, missed the gas sand and was abandoned at 780 feet. Marland Oil Co.'s No. 10 Foureyes, CEL W half SW, Section 4-25-2, is producing 358 bbls. from sand at 3,911-26 feet.

Oklahoma County

J. V. Bailey and W. R. Ramsey's No. 1 Gludoracey, C SE SE Section 9-11-1w, is dry and abandoned at 4,512 feet.

Osage County

Peters Petroleum Co. has moved the rig and tools out for No. 2, NW cor. SW Section 36-25-9. Sheeders Oil & Gas Co. made location for No. 1, C SE Section 7-23-10.

Skelly Oil Co.'s No. 1, SE cor. SW Section 27-27-6, Burbank Pool, missed the Burbank sand and has been abandoned at 3,230 feet. Blackwell Oil & Gas Co.'s No. 2, NW cor. SW Section 5-27-11, is dry and abandoned at 1,176 feet in the Peru sand. Oklahoma Natural Gas Corp.'s No. 768, SE cor. NE SE Section 33-22-11, was completed for 5,500,000 feet of gas in sand at 1,343-56 feet.

Spring Oil Co.'s No. 2, NW cor. SE NE Section 36-22-11, is dry and abandoned at 2,085 feet in the Turkey Mountain sand encountered at 2,080 feet.

Payne County

Shaffer Oil & Refining Co.'s No. 1 Little Chief, NW cor. NE Section 4-18-5, is making 12,500,000 feet of gas from sand at 2,118-34 feet.

Pawnee County

Superior Oil Corp. made location for No. 1-A William Scott, NE cor. Section 20-21-7. Black and others have the rig up for No. 3 Cotton, C SE NE Section 6-20-8.

One Hundred One Ranch Oil Co.'s No. 1 School Land, NE cor. SE Section 16-21-6, has been abandoned at 3,480 feet. Superior Oil Corp.'s No. 2 Rule, CNL NW NE Section 9-20-7, had sand at 2,600-12 feet and is making 108,000 feet of gas.

Pontotoc County

American Oil & Refining Co.'s No. 1 Wray, SE cor. NW NW Section 34-5-6, is dry at 2,000 feet. No. 1 Phillips, C SW NE Section 34-5-6, was completed for 4 bbls. in sand at 1,777-86 feet, total depth 2,210 feet. Ada Development Co.'s No. 1 Walton, SW cor. Section 7-3-7, has a hole full of water in sand at 4,440-45 feet.

Stephens County

Medlin and others' No. 3 Burke, NE cor. NW SE Section 34-1s-8w, is drilling at 900 feet. Huff & Duff's No. 1-A fee, SE cor. SW SW NE Section 34-1s-8w, is a location. Hall & Briscoe's No. 1 School Land, SE cor. Section 24-1s-4w, is drilling at 1,350 feet. Humble Oil & Refining Co.'s No. 3 Peddycort, NE cor. Section 25-1s-4w, is drilling at 1,460 feet.

Magnolia Petroleum Co.'s No. 1 Coffelt, NE cor. NW SE Section 26-1-9w, had sand at 2,232-45 feet, plugged back to 2,240 feet and is pumping 15 bbls. No. 4 Shaffer-Young, SE cor. SW Section 29-1-8w, has been abandoned at 2,220 feet. No. 14 D. Russell, SE cor. NE SE Section 25-1s-9w, swabbed 65 bbls. from sand at 2,128-35 feet. Harry Hanbury's No. 1 Taliaferro, SE cor. NE SE Section 28-1s-8w, swabbed 35 bbls. from sand at 2,209-14 feet. Fort Ring Oil Co.'s No. 1 Nelson, SE cor. NE Section 28-1s-8w, was abandoned at 2,800 feet. Merrick-Cameron Oil Co.'s No. 3 Underwood, SW cor. NE SE Section 13-1s-4w, had a series of sands at 2,211-3,129 feet, drilled to 3,319 feet and made 10 bbls. Wirt Franklin's No. 4 Apple-Franklin, NE cor. SE NE Section 24-1s-4w, made 840 bbls. the first 24 hours from a series of sands at 2,459-2,841 feet. H. O. Farley's No. 1-A Nigh, SW cor. SE NW Section 34-1s-8w, was abandoned without making hole. Medlin and others' No. 2 Burke, NW cor. NE SE Section 34-1s-8w, is dry and abandoned at 1,663 feet.

Tillman County

Oasis Oil Co.'s No. 1 Snelling, SE cor. Section 13-1s-18w, has been abandoned at 1,525 feet.

Okfuskee County

Josey Oil Co.'s No. 2 Fields, SW cor. NW NW Section 33-12-11, was completed for 10,000,000 feet of gas in the Kingwood sand at 3,015-30 feet. Kingwood Oil Co. and others built the rig for No. 1 Bruner, C NW SW Section 15-10-9.

Okmulgee County

Brownlee & Martin's No. 1-A Vierson, NE cor. SE SE Section 34-14-12, is drilling at 700 feet. J. J. Shock and others' No. 1 Rees, NE cor. Section 34-12-12, is spudding. A. E. Kirkland and others' No. 4 A. Bell, SE cor. NE NE SW Section 17-15-13, is drilling at 1,030 feet. The Texas Company's No. 14 M. Bruner, CSL SW SE Section 16-15-14, is drilling deeper at 1,880 feet.

J. L. Powell's No. 3 B. Thomas, CNL SW SE Section 23-14-14, was shot with 40 quarts in sand at 994-1,023 feet and made 10 bbls. J. C. Lampert's No. 4 J. Flint, C SW SE Section 27-14-14, lost the hole at 1,939 feet and was abandoned.

Muskogee County

C. A. Lovelace and others are rigging up the machine for No. 1 D. Serrall, NE cor. SE NE, Section 21-15-15. Mitchell Oil Co.'s No. 1 Grayson, NE cor. SE Section 23-15-15, is rigging up. Harry Smith's No. 7 Pouncil, NW cor. SE NE NE Section 25-15-15, is spudding. Link Oil Co. is rigging up the machine for No. 2 Jefferson, NW cor. NE SE Section 32-15-15. Jolly Ogg Oil Co.'s No. 1 Rector, SE cor. NE Section 18-15-17, is spudding. P. H. Stein and others have the machine on the ground for No. 4 Davidson, SW cor. SE NW SW Section 24-15-17. C. M. Bradley has a machine at the location for No. 7 Goodrich, NW cor. SW NW SW Section 5-14-19. No. 5 Crittenden, SW cor. NW NW SW Section 5-14-19, is drilling at 500 feet. J. A. Staley and others moved the machine out for No. 3 McDaniel, NE cor. SE SE Section 6-14-19. Elk Drilling Co. has the machine on the ground for No. 1 Jones, SW cor. Section 34-13-17.

F. E. Webb and others' No. 5 Asbury, SE cor. NE SW NE Section 20-16-15, was completed for 10 bbls. in sand at 1,360-90 feet. Vise & Heflin's No. 3 Grayson, NE cor. NW SW Section 30-15-15, which was to have been deepened, has been abandoned at 1,535 feet. Denton & Marshall's No. 1 Taylor, NW cor. SW Section 16-15-17, drilled to 2,240 feet in the Turkey Mountain sand and was abandoned. Jolly Ogg Oil Co.'s No. 2 Lewis, NW cor. SW NE Section 17-15-17, is making 5,000,000 feet of gas from sands at 1,380-1,485 feet and 1,995-2,051 feet. H. E. Williams' No. 2 Sango, NE cor. NW Section 17-15-17, was completed for 8,750,000 feet of gas at total depth of 1,444 feet. O. T. Gilbertson and others' No. 3 Cherry, C SW NW Section 27-14-16, made 100 bbls. from sand at 1,603-27 feet after a shot of 40 quarts. C. M. Bradley's No. 4 Crittenden, NE cor. NW SW Section 5-14-19, is dry and abandoned at 760 feet. Columbus Drilling Co.'s No. 8 Doyle, C SW NW Section 28-13-14, was completed for 250,000 feet of gas in sand at 740-850 feet after drilling to 1,400 feet.

Rogers County

M. S. Mussellem's No. 1 Mullen, NE cor. SE Section 35-20-16, is dry at 972 feet.

Wagoner County

L. H. Towner and others' No. 1 A. Taylor, SE cor. NE NW, Section 1-17-17, is drilling at 187 feet. Cartwright & Kyle's No. 4 J. Lucky, CEL SE SW Section 11-18-15, had a show of oil in sand at 1,277-84 feet and was abandoned at 1,307 feet. W. O. Dickerson's No. 5 Kelly, Section 6-17-15, located in the SE cor. NW NE, is producing 30 bbls. from sand at 1,332-70 feet. No. 6 Kelly, CNL SW NE Section 6-17-15, was completed for 45 bbls. in sand at 1,335-90 feet. Knox & Shouse's No. 1 Atkins, NE cor. NW Section 13-17-16, is a 7-bbl. well in sand at 795-810 feet. W. J. Metzger's No. 3 Morris, CNL SW NE Section 1-17-17, has been abandoned at 214 feet. O. A. Sewell's No. 1-A Sweet, CSL NE SE Section 11-16-15, is a dry hole at 1,130 feet. Clay Brown and others' No. 1 E. Roberts, SW cor. NW NW Section 29-16-16, was abandoned at 2,220 feet. M. S. Mussellem's No. 4 Bruner, SE cor. SW SW Section 29-16-16, dry and abandoned at 1,702 feet.

Hughes County

Transcontinental Oil Co.'s No. 7 Ogle, NW cor. NE NE Section 4-9-9, an old well deepened to 3,760 feet in the top of the Hunton lime, is making 3,000,000 feet of gas.

Pottawatomie County

Independent Oil & Gas Co. and Darby Petroleum Co. and Gypsy company made

(Continued on Page 119)

SMALL PRODUCER COMPLETED SIX MILES WEST OF WICHITA, KANSAS

By J. L. Dwyer
Staff Correspondent, Kansas Fields

The discovery of oil 6 miles west of the city of Wichita, Kans., was the most exciting event of the past week in the fields of that State. The Marland Oil Co.'s No. 1 Schmitz, NW cor. SW SW, Section 5-28-1w, Sedgwick County, has for the time being, at least, disturbed the peaceful equanimity of a region where agriculture has reigned supreme for many years. While the initial output of the well is not startling, it at least seems to be a small producer at 2 feet in the Mississippi lime found at 3,395 feet, and is flowing about 1 bbl. an hour. There is a column of 2,000 feet of oil standing in the hole, and after tanks have been built, the well will be swabbed.

A development for Lyon County is Jackson & Wise's No. 3 Bradfield, NW cor. SE NW, Section 25-21-10, which has 1,600 feet of heavy oil in the hole from sand 2,566-74 feet. The use of air-lift equipment will be tried out in this area, as it is thought that the column of oil which rises in the sands will prove a good foundation.

Reversing the standard practice of core drilling, the Vickers Petroleum Co. will use this apparatus after the discovery well has been drilled in a pool. The first well was found in the SW cor. SE, Section 11-9-16w, Rooks County, and has been making 10 bbls. an hour on the swab from sand 3,257-61 feet. This development is 20 miles northwest of the Russell Pool of Russell County, and is unusually interesting as it may mean the opening of a vast new territory to the drill.

The owners of a block of 25,000 acres have all joined the Vickers Petroleum Co. and will share the cost of using the core drill to test out the structural possibilities of the entire block which will be prospected using the Fort Hays limestone as a key formation.

Butler County

Empire Gas & Fuel Co. is building the rig for No. 1 Sharrock, NW cor. NE SE, Section 27-27-5. Intersea Oil Corp. and others have the rig up for No. 2 Cabeen, SE cor. NE SW, Section 9-27-6. Sheldon and others made location for No. 1 Allen, NW cor. SW SW, Section 21-27-7. Ritchey, Moore & Empire Gas & Fuel Co. made location for No. 1 Ross, NE cor., Lot 17, Section 6-27-8.

Schwartz and others' No. 2 Hazlett, NE cor. SE SW NW, Section 19-25-5, was completed for 15 bbls. in sand 731-40 feet. Connell Oil Co. and others' No. 1 Hoffman, NW cor. NE, Section 9-28-5, is dry and abandoned at 2,737 feet. Johnson and others' No. 1 Rogey, NW cor. NE NW, Section 10-28-6, is a 10-bbl. well in sand 3,053-63 feet. Davidson and others' No. 1 French, NE cor. SE, Section 13-28-7, is dry at 3,233 feet. Helmerich & Payne's No. 1 Doran, NE cor. SW, Section 1-29-3, has been abandoned at 2,998 feet. Flack & Davidson's No. 1 Gibbons, SE cor. NW, Section 5-29-7, had sandy lime 2,685-2,730 feet and dry and abandoned at 2,803 feet.

Cowley County

Roxana Petroleum Corp. made location for No. 1 Hanna, SW cor. NW SE, Section 16-31-3. The Texas Company has the rig on the ground for No. 2 Hettle, SE cor. NW SE, Section 21-31-4.

Arkansas Fuel Oil Co.'s No. 1 Brown "A", SE cor. NE SW, Section 6-32-5, is making 100 bbls. from sand 2,334-48 feet since it was shot with 30 quarts. Forrester and others' No. 2 Countryman, SW cor. NE NW, Section 4-33-7, was completed for 5,000,000 feet of helium gas in sand 1,035-46 feet. Pyle & Sutter's No. 1 Leslougan, C NE SE, Section 16-35-4, is making 2,250,000 feet of gas from sand 1,872½ feet.

Dickinson County

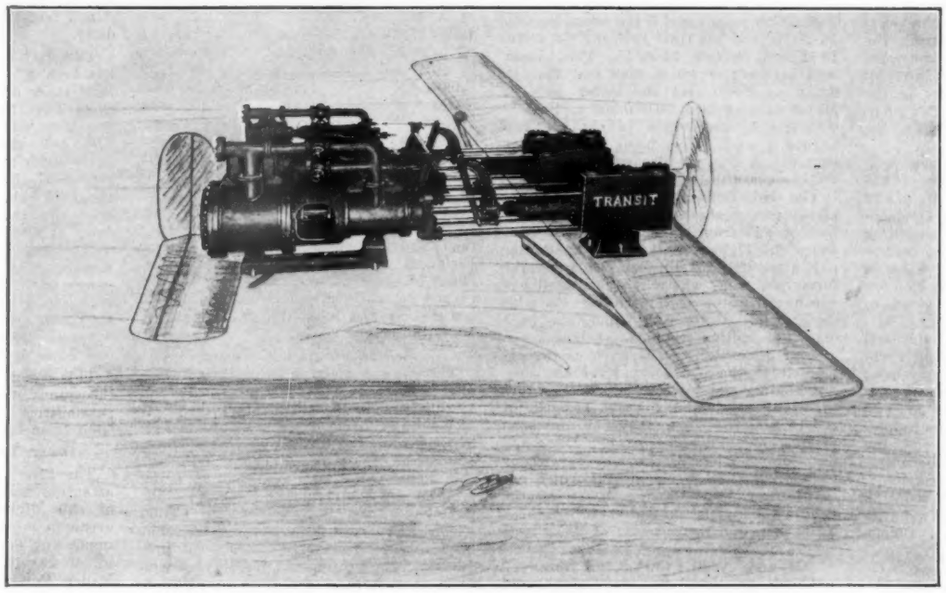
D. I. Hall's No. 1 Dunlap, NE cor. SE NE, Section 31-15-4, is spudding. Skow & Ritchey's No. 1 Will, C NW NW, Section 2-16-4, location was made.

Elk County

Kansas Central Oil Co. has built the rig for No. 1 Harvey, SE cor. SW, Sec-

(Continued on Page 119)

NON-STOP



As far as we know, Col. Lindbergh used no product manufactured by this Company in his epoch making non-stop flight from New York to Paris. We do not manufacture airplanes nor their motors, but we are paying good money for this page ad to get it across to you that we do manufacture non-stop Hot Oil pumps, and that Non-Stop Pumps are just as important to the cracking industry as the non-stop flight is to aerial transportation.

Starting the run of a batch of crude is much the same as starting over the Atlantic in an airplane. It is dangerous to stop. TRANSIT Horizontal Twin Single Hot Oil Pumps will not stop until the steam is turned off.

This, and other unusual features make TRANSIT Hot Oil Pumps the logical pumps for cracking processes.

Repeat orders indicate satisfaction better than words.

These features are explained in detail in our book on Horizontal Twin Single Hot Oil Pumps. We will gladly send you a copy.

Representatives
FRICK-REID SUPPLY COMPANY
Tulsa, Okla., or any store.
ASSOCIATED SUPPLY COMPANY
Los Angeles, San Francisco, Bakersfield, Fellows
E. L. WILSON HARDWARE CO.
Beaumont, Texas.

NATIONAL TRANSIT
Pump & Machine Co.
Oil City Pa.

DISTRICT OFFICES
NEW YORK PHILADELPHIA PITTSBURGH
CLEVELAND HOUSTON TULSA DENVER

Representatives
THE GLOBE SUPPLY & MACHINERY CO.
New Orleans, La.
F. C. RICHMOND MACHINERY CO.
Salt Lake City, Utah.
MORTON McL. DUKEHART & CO.
Baltimore, Md.
REEVES & SKINNER MACHINERY CO.
St. Louis, Mo.

Haynes' Well Starts Intense Activity

Locations Staked for 12 Tests in Pine Island District of Louisiana Result of Gusher Completion. Drilling Deeper

By Neil Williams
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., July 11. — The intense activity in deeper drilling in the Pine Island Field of Caddo Parish developing as a direct result of the bringing in by Haynes Brothers of a gusher well from the Trinity horizon a week ago overshadowed all other oil news in the North Louisiana-Arkansas division the past week.

With locations staked for 12 new deep wells in the immediate vicinity of the Haynes gusher up to Saturday night and with operations already started on deepening two deep gas wells on adjoining leases, the Pipe Island Trinity horizon is receiving a play for oil not experienced by any other part of this division in months and new life is being given to operations generally.

The fact that acreage around the well is in the heart of the Pine Island Field and already tied up almost entirely by a few major companies has made a scramble for leases impossible. However, two trades, involving six small tracts of close-in acreage, were consummated by the Arkansas Fuel Oil Corp. and the Pittsburgh Development Co., a sister company.

First among the transactions reported was the deal by which the Pittsburgh Development Co. acquired from O'Dell & Lawton 10 acres, comprising the N half of the N half NE SE Section 15-21-15, paying $40,000 cash for a straight five-year commercial lease. This company also made a deal with Odell & Lawton to drill one well carrying them for an eighth overriding royalty on the north 12½ acres SW NE, Section 15-21-15, and a deal to drill one well free on the N third of W third SE NE, Section 15-21-15, providing that when the well is completed Odell & Lawton will be carried for a fourth working interest.

Another deal was made by the Arkansas Fuel Oil Co. with the Tholl Oil Co. for 10 acres in the NW cor. SW SW Section 14-21-15, and 20 acres in the N half NE NW Section 23-21-15, and 80 acres in the E half SE Section 22-21-15. Terms of this deal provide that the Arkansas Fuel Oil Co. will drill one well on the 10 acres and one on the 20 acres and will carry the Tholl Oil Co. for a half interest after that.

New Tests Staked

The 12 new deep wells to be drilled in the vicinity of the Haynes well and for which locations had been staked up to Saturday night are:

The Texas Company: No. 6 Herndon, NW cor. SW Section 14-21-15; No. 8 Herndon, SE cor. SW Section 14-21-15; No. 19 Raines, SE cor. SE cor. SW SE Section 15-21-15; No. 49 Caddo Minerals Land Co., NW Section 23-21-15; No. 9 Herold, SW Section 14-21-15.

The Gulf Refining Co.: No. 10 Herndon, SE Section 15-21-15; No. 14 Tyson, SW Section 14-21-15; No. 15 Tyson, SW Section 14-21-15.

Arkansas Fuel Oil Co.: No. 1 Huckaby, NE cor. NW SW SW Section 14-21-15.

Haynes Brothers: No. 2 Murray, CWL NE SW SW, Section 14-21-15; No. 1 Spell, SE cor. SE NE Section 15-21-15.

Magnolia Petroleum Co.: No. 26 Raines, NE Section 22-21-15.

All these tests will be drilled at least to the lower Glen Rose formation of the Trinity horizon in which Haynes Brothers brought in their No. 1 Murray, Section 14-21-15, the latter at a depth of 3,685 feet. With favorable drilling these tests, however, will not be completed before 60 or 75 days, but in the meantime interest is being centered on two gas wells which are being drilled deeper and on several other tests which are near the producing level.

Deepening Gas Wells

The gas wells being deepened are: The Texas Company's No. 5 Herndon, Section 14-21-15, and the Gulf Refining Co.'s No. 13 Tyson, Section 14-21-15. The former well is the one which blew out from a depth of 3,590 feet the latter part of March making from 30,000,000 to 40,000,000 feet of gas which caught fire and burned a week before being placed under control. A new rig already has been put up, the gas killed and drilling started.

The Gulf Refining Co.'s well was completed two weeks ago making 20,000,000 feet of gas from a depth of 3,730 feet. Since the Haynes well picked up gusher pay after drilling 14 feet deeper in the formation from where the gas sand was encountered, the Gulf Refining Co. also decided to kill its gas, which has been done and drilling resumed.

Two other deep wells have casing cemented at the producing level and now are holding the interest of all operators in the Pine Island district because of the bearing they may have on the deep production. These tests are: Dixie Oil Co.'s No. 8 Fitzsimmons and The Texas Company's B-13 Noel, both of which are in Section 14-21-15, the heart of the field. Casing is cemented in each at 3,700 feet, and the outcome of these tests should be known within 10 days.

Haynes' Well Flows 3,735 Bbls.

The Haynes well flowed 3,735 bbls. of oil with 0.2 per cent water and 0.8 per cent b.s. in the 24 hours ending at 7 o'clock Saturday morning. It was not flowing through a choke but through three flow lines with gate valves partly pinched in. Three gas separators have been rigged up, the well making around 5,000,000 feet of gas.

This well was bailed in on July 3 after being deepened 14 feet from 3,671 feet where it previously had been completed as a gas well making 20,000,000 feet daily. In 30 minutes it put 250 bbls. of oil in a 500-bbl. tank and then was shut in until more storage facilities could be provided. After storage on adjoining leases was borrowed, the well again was opened but was found to have been bridged over. However, after swabbing some time the well came back and put 6,500 bbls. of 42.3 gravity pipe line oil in the tanks in 24 hours.

Including the Haynes well, but not dry holes, 17 wells have been completed in the Trinity horizon of the Pine Island Field, of which 5 are making some oil. Eight of these 17 wells are dead or have turned to salt water and the remainder are making gas except the two which are being deepened.

Believe Formation Spotted

There is considerable uncertainty among operators as to what will be opened up at this level in the Pipe Island Field. It is generally believed that the formation is spotted in the field appearing to have streaks of oil or gas. The formation at this depth also has evidence of being cracked and has crevices, similar to other pay levels and sections of the Caddo Field, and there is no assurance that even direct offsets will make good producers. Many think that the Haynes well is in or close to a crevice or happened to hit a spot where the Glen Rose lime is more porous, thus getting the big production.

The freakish condition of the district has been shown again in the sharp decline in production and pressure of the Gulf Refining Co.'s No. 12 Tyson since the Haynes well came. The Gulf well, located about a quarter mile north, has dropped in gas pressure to around 460 pounds and its oil production has declined from about 930 bbls. to 590 bbls. daily.

This is the second time the Gulf well has been affected sharply by the coming in of other producers, the first time being when The Texas Company's No. 5 Herndon blew out the latter part of March. The well originally was completed in July, 1926, as a gasser. Later in January, 1927, it began flowing oil, at first about 25 bbls. daily. This oil production gradually increased to about 400 bbls. daily at the time The Texas Company's wells blew in when the flow suddenly stopped. As soon as The Texas Company's well was put under control, oil again started to flow in the Gulf's No. 12 Tyson and has been increasing steadily until now, reaching a maximum of 938 bbls. daily.

This condition has aroused a doubt in the minds of most operators as to the possibilities of the development in the Glen Rose formation at Pine Island.

Other Important Developments

The Pine Island activity drew general attention from operations in other parts of this division but there were other areas in which there were more or less important developments. Possibilities of oil or gas in a rank wildcat district of Miller County, Arkansas, which is being tested by Lenz and associates' No. 2 Dale, Section 23-15-16, drilling of which has been watched with interest, received a setback the past week when salt water broke in.

This test was not even bailed, the salt water pouring in after the hole was washed for 1½ hours following the drilling out of the plug cemented at 3,040 feet. Mr. Lenz believes the casing was not properly seated and has mudded off the water and is taking core. Mr. Lenz claimed to have encountered a very favorable sand, on the strength of which H. A. Guess of Texarkana entered into a contract to drill a 3,000-foot test on a block of 1,100 acres, the center of which is Section 33-15-26.

This district also is waiting developments in Ohio Oil Co.'s No. 1 McCarty, Section 5-12-1w, an inland salt dome test in Winn Parish, Louisiana. This is the test which two weeks ago had a gas blowout with the hole down 2,642 feet, without any casing except the surface string set at a depth of 200 feet. As this is on an inland salt dome, the making of a gas well there would be an important event for the division and would stimulate drilling on this and other salt domes in North Louisiana.

The Ohio Oil Co. cemented 6-inch casing at 2,222 feet, 420 feet off bottom, after killing the gas, and the past week drilled out the plug. It was reported the test was bailed down to the bottom of the hole and there was some disappointment when the test failed to produce anything but a small show of gas. However, it was found that the test was not on bottom but had bridged over immediately under the bottom of the casing. As the week closed the bridge was being drilled out and the hole being cleaned out, and, it was reported, the test tried to blow out again.

Some operators believe that the Ohio well merely happened to hit a pocket of gas but they point out that a dry hole will not necessarily condemn this salt dome as salt dome drilling experience in the past has indicated that it may take

(Continued on Page 115)

WILDCATTING TAKES ON NEW LIFE IN THE LOUISIANA-ARKANSAS AREA

By Neil Williams

SHREVEPORT, La., July 11.—Wildcatting from present indications is taking on new life in the North Louisiana and Arkansas division, and, contrary to the outlook several weeks ago, the remainder of the summer and autumn apparently is holding in store an active play not only in semiproven but also in rank wildcat territory.

The past two weeks witnessed several important developments in that direction, one of principal moves being in West Carroll Parish in the extreme northeast part of Louisiana. Receding of flood waters in eastern Louisiana has enabled operators to enter that section of the state with drilling being resumed on an active scale in Richland Parish and with leasing brisk in West Carroll Parish.

West Carroll Parish is just north of Richland Parish, where a wildcat play is uncovering a new oil field, and east of the Monroe district, the world's largest gas field. Locations already made in West Carroll Parish are approximately 25 miles east of the Monroe Field and about the same distance northeast of the Richland activity.

Oil Field Near Monroe?

Operators for a long time have held the opinion that a major oil field exists somewhere in the vicinity of the Monroe gas field. No oil has been uncovered in the district itself and several deep tests have led to the belief that there is no oil there. A drilling play has been carried on in Richland Parish in hopes of finding oil there, but as that district also has turned out only gas so far operators now are shifting their interest to West Carroll Parish to the northeast forming a triangle with the Monroe and Richland Fields.

The Palmer Corp. has blocked 38,000 acres in that parish and, having made a location in the NE SW Section 16-20-10, is putting up a rig for its first test on the Pioneer Lumber Co. land. Protection acreage at $5 has been taken by the Dixie Oil Co., Magnolia Petroleum Co., Roxana Petroleum Co., Ohio Oil Co., Standard Oil Co., Gulf Refining Co. and several other smaller companies.

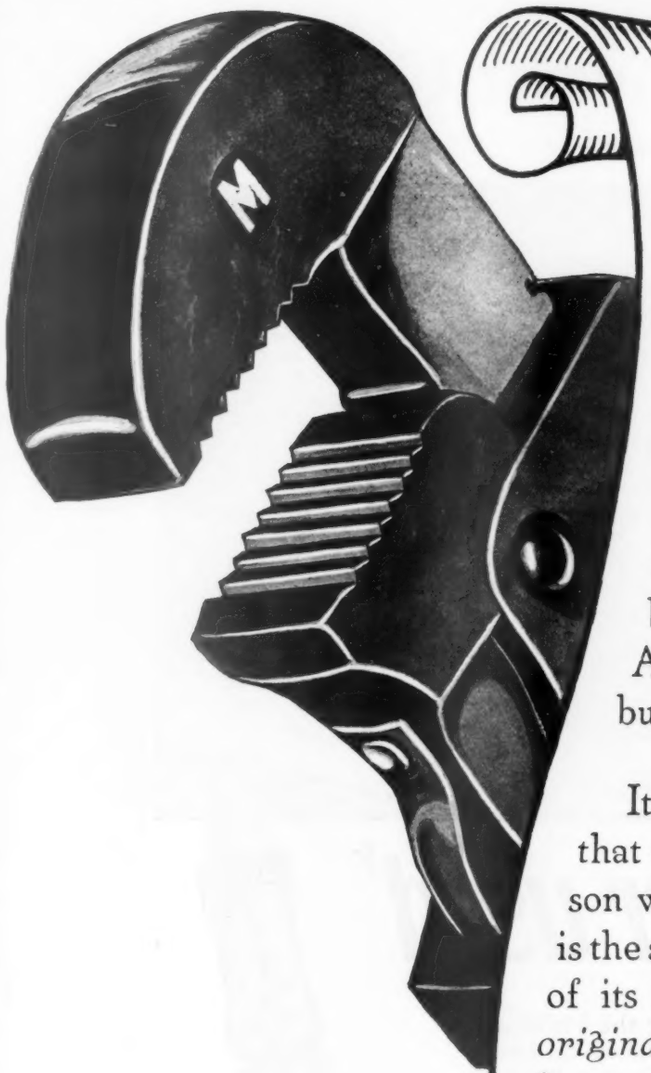
Phillips Petroleum Co. has another block on which it has a rig up in the NW cor. SW Section 32-20-9e, for No. 1 on the W. R. Marion land.

Inland salt dome acreage of North Louisiana also is to be the scene of wildcat drilling this year. Interest in this was stimulated by the recent blowout of Ohio Oil Co.'s No. 1 McCarty, Section 5-12-1w, on the Sikes Dome in Winn Parish. Operators are watching the outcome of this test. Several companies are active in trying to locate new salt domes in the north central part of the state.

The territory on the northeast edge of the Lawson district in Union County, Arkansas, also is interesting with a test being drilled on the Hadley land there in Section 2-18-13, by W. D. Wingfield. This hole has made two tests, both showing salt water, one at 2,290 feet and the latest one Saturday also showing salt water.

This test is between the Lawson district and Ohio Oil Co.'s wildcat 50-bbl. pumper in Section 1-17-14, the No. 1

(Continued on Page 118)



NOTICE!

TO THE TRADE

We have been continuously manufacturing the *original pattern* Stillson wrench since 1904. Our right to continue this manufacture in the manner that we have in the past has been settled by the United States Circuit Court of Appeals, which is the final appellate tribunal in patent and trade-mark matters.

It has been demonstrated and admitted, that although the *original pattern* Stillson wrench costs more to manufacture, it is the strongest and most durable wrench of its kind ever made. To obtain the *original pattern* Stillson wrench, look for our trade-mark. MORCO STILLSON WRENCH

MORCO
STILLSON WRENCH

The Original Pattern Stillson Wrench

More expensive to make, but typical of Morco Quality

For further information regarding Morco wrenches write the nearest sales office.

MOORE DROP FORGING CO.
Springfield, Mass., U.S.A.

Surpless, Dunn & Co.
74-76 Murray Street
New York City

Surpless, Dunn & Co.
North Clinton St.
Chicago, Illinois

London Office: Gaste[illegible] Mayfair, Adelaide House, King William St., London, E. C., 4

R. H. Shouff, Driller, (right)

Guy Koontz, Tool Dresser, (left)

Shouff Joins The Drillers' Chorus ~

"Best Swab I ever used"

R. H. Shouff, driller of Strothers No. 1 for the Phillips Petroleum Company, echoes other experienced drillers all over the world, when he says of the Guiberson Swab, "Best Swab I ever used."

The Guiberson has earned its right to the title of "best" by its ability (1) to pass through any casing readily, without sticking, (2) to raise a full load, (3) to run in faster, without kinking wire line, and (4) to operate with minimum wear on rubbers and on casing.

Made in two types, "A" for general use, and "E" for continuous production swabbing.

"Better Be Safe Than Sorry"

THE GUIBERSON CORPORATION
Box 1106, Dallas, Texas
CALIFORNIA BRANCH: 1506 Santa Fe Ave., Los Angeles
402 W. First St. TULSA
321 S. Osage PONCA CITY
506 Trust Bldg. NEWARK, O.

GUIBERSON
BETTER BE SAFE THAN SORRY

New Pool Opened in Southwest Texas

O. W. Killam Completes First Oil Well in Mirando District, 4 Miles East of Aviator Pool. Gas Well Spraying Oil

By B. D. Stevenson
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., July 11.—Leading events in southwest Texas the past week are a 50-bbl. oil well completed at 2,182-88 by O. W. Killam in the Mirando district in the southeast part of the Albercas grant 4 miles east of the Aviator Pool and the first oil well in that area; another gas well spraying oil by the Cole Petroleum Co. in the area 4 miles west of the first Cole gas field; a well on the southeast edge of the Refugio Field showing a little oil in two sands and the announcement that the Rycade Oil Corp. will start a test in Maverick County near its No. 1 Chittim while continuing to fish for tools in No. 1. The Chittim well emerges from wildcat nature in as much as No. 1 gauged 28,900,000 feet of gas and made about 75 or more barrels of oil with it.

In the Mirando district on the Albercas grant the Killam well follows the completion of a 50,000,000-foot gas well at 2,137-44 feet on March 18 of this year by Killam & Maddox in Block 65 of the Albercas grant. Since then a 5,000,000-foot gasser and a 25,000,000-foot gasser have been completed at approximately the same depth in the same area and one dry hole drilled on Block 64 to a depth of 3,715 feet. The 50-bbl. oil well is O. W. Killam's No. 4 Bruni and is on Block No. 4 and is 150 feet from the north line and 200 feet from the west line. It is due north of the Henne, Winch & Fariss Pool in Jim Hogg County and production is at about the same depth.

Discovery Well Sprays Oil

Cole Petroleum Co.'s No. 46 Benavides, a 3,000,000-foot gas well spraying a little oil, is 12 miles north of the Killam well in the Albercas grant and is 4 miles west of the Cole gas field. It is in Survey 412 and the No. 36 Benavides at 2,328-36 feet was completed April 22 a big gas well and it has since been spraying oil. It was the discovery well in this new pool. No. 46 is several hundred feet north and east of No. 36 and came in at 2,337-45 feet.

In the Refugio gas field in Refugio County, William F. Morgan, Inc.'s, No. 1 Ryals on the southeast edge of the gas field has cored oil sands at about 2,600 and 2,800 feet and is shut down now at 3,000 feet and may be deepened. One of the sands put quite a lot of oil on the ditch. This seems to be about the first well of which there is any record showing oil in that field. The field was discovered three or four years ago and has been furnishing gas to Houston through two lines.

In Maverick County, Rycade Oil Corp. is about to start another well. It has been wrestling for weeks with No. 1 Chittim, a wildcat well 100 miles from any production which at 5,592 feet had 28,900,000 feet of gas and tools lost in the hole and estimated to be making 75 bbls. or more of oil a day from the Trinity sand. Rig is being moved in. No. 1 will continue to fish or else sidetrack the tools. Late reports, not confirmed, are that the tools have been sidetracked and the well drilling deeper. This being the first important production out of the Trinity sand and the well 100 miles from any production makes it an important test.

MIRANDO TERRITORY

Webb County Completions

O. W. Killam's No. 4 Bruni, Albercas gas field, Block 64, at 2,182-88 feet made 50 bbls. of oil.

Cole Petroleum Co.'s No. 46 Benavides, Survey 412, Block 5, at 2,337-45 feet, made 3,000,000 feet of gas and sprayed oil.

Abandoned

W. O. Wheatley abandoned location made for No. 3 Kruger in Survey 1,570, Block 4, of the Reiser Field in Webb County.

Duval County

Humble Oil & Refining Co.'s No. 2 Welder-Woods, Survey 102, Duval County, was abandoned dry at 2,169 feet in sandy shale.

Bexar County Completions

Grayburg Oil Co.'s No. 14 Ed Wells, Somerset Field, McKinley Survey, at 2,000 feet was completed making 5 bbls.

Caldwell County

Magnolia Petroleum Co.'s No. 15 Stair, J. Henry Survey, Luling Field, was completed at 2,088 feet making 25 bbls.

McMullen County

E. R. Marts' No. 9 Jones in the Crowther Field, was completed at 523 feet making 9 bbls. His No. 3 Farmers Life, survey south of No. 56 Crowther Field at 546 feet was completed making 9 bbls.

Milam County

McCormick & Noack's No. 1 Taylor Wooten, William Allen Survey, Rockdale Field, was completed making 8 bbls.

Lee County

Bowers and others' No. 1 Brenhaum, 2 miles west of Monheim in Lee County, was abandoned dry at 1,820 feet.

Locations Webb County

Haynes-Barnsley Syndicate's No. 1 de la Garza, Survey 335, Block 22 of the Carolina-Texas gas field has been spudded in.

O. W. Killam has made location for the No. 5 Bruni in Block 65 of the Albercas Field and erected derrick.

Newton Drilling Co. has made location for No. 1 Bruni in Block 64 of the Albercas Field and erected derrick.

Bexar County

C. L. Witherspoon has made location for the No. 1 Kerr on the W. D. Kerr lease in the Somerset Field, 300 feet to SE cor. of the lease and 1 mile from the Medina River.

DeWitt County

Mr. Hogue and associates have made location for test west of Williams & Gates' No. 1 Gohmert.

J. Walter Allen's No. 1 Roeder is location, at Salt Creek, 12 miles west of Yorktown.

McMullen County

E. R. Marts' No. 9 Jones is location in the Crowther Field in McMullen County. Also he has made location for No. 4 Farmers Insurance, James Freal Survey, at 4,300 feet to east line and 2,000 feet to south line. Location has also been made for the No. 10 Poitevent, Survey 56, in the northwest corner.

Refugio County

Houston Gulf Gas Co.'s No. 1 W. Heard is location in the southwest corner of the lease, Refugio town tracts.

Milam County

W. A. Jones has made location for the No. 1 Casparis on the Kate Casparis 100-acre lease, 960 feet southeast of the No. 1 Smith and is putting up derrick. This test is in strictly wildcat area.

Cole Gas Field—Duval

Cole Petroleum Co.'s No. 38 Benavides, Survey 10, Block 12, located 155 feet to northeast and northwest lines, has derrick up. Maddox and others' No. 1 Bruni, Survey 1, east 40 acres, Survey 133, at 150 feet to northeast and southeast lines, is rigging up. Houston Oil-Sun Oil Co.'s No. A-4 Benavides, Blocks 405-406-411-412, is coring for sand at 1,560 feet. Houston Oil-Roxana's No. 1 Bruni, Survey 11, Block 23, located 100 feet to southeast lines and 110 feet to northeast lines, is rigged up. Newton Drilling Co.'s No. 1 Bruni, Survey 9, is location 500 feet to northwest lines and 150 feet to northeast lines. Trussell, Cezeaux & Putman's No. 1 Bruni, Survey 10, is location.

Piedras Pintas

Humble Oil & Refining Co.'s No. 6 Walsh, Survey 185, is located 364 feet northwest of No. 4, is fishing for torpedo line lost while shooting liner.

Kitselman & St. Albans Pool—Jim Hogg

K. & S. Corp.'s No. 57 Holbien, Survey 17, Block 40, located 330 feet to NE cor., is drilling at 3,300 feet.

Alworth Pool

Magnolia Petroleum Co.'s No. 22 Merchants State Bank, Survey 236, located 450 feet to west line and 150 feet to south line, is drilling at 2,874 feet. Alworth Brothers' No. 13 Garza, Survey 39, Block 6, at 150 feet to southeast lines and 450 feet to southwest lines, is rigged up.

Schott Field—Webb

Laredo Oil Co.'s No. 13 Killam, NW NE SE, Survey 457, located 150 feet to west line and 175 feet to north line, is drilling at 1,635 feet.

Albercas Gas Field

O. W. Killam's No. 4 Bruni, Block 64, located 150 feet to north line and 200 feet to west line, at 2,182-88 feet tested small amount of oil and gas through tester and is running casing.

Aviator Pool

Columbia Petroleum Co.'s No. 15 Puig, is drilling at 1,100 feet, with location of test in Block 76, at 600 feet to south line and 20 feet to east line; No. 16 Puig, Block 75 is location 301 feet to east line and 600 feet to south line.

Carolina-Texas Gas Field

D. J. Simmons No. 2 de la Garza, Survey 335, Block 8, located 150 feet to SW cor., is standing at 400 feet. Ward and others' No. 1 Webster, NW NE NW, Survey 684, located 150 feet to NW cor., is drilling again at 2,800 feet having hole cleaned. Houston Oil Co.'s No. 1 Barnsley, Survey 268, Block 9, located 150 feet to SW cor., is drilling at 2,350 feet, having show oil at 2,212-17 feet.

Cole Gas Field

Cole Petroleum Co.'s No. 46 Benavides, Survey 412, Block 5, located 1,032 feet to east line and 433 feet to south line, at 2,337-39 feet tested 45,000,000 feet of gas through drill stem; No. 47 Benavides, Survey 412, Block 13, located 160 feet to east line and 450 feet to south line, is drilling at 1,500 feet.

Mirando Valley Pool—Zapata

The Texas Company's No. 6 Jennings, Cerrito Blanco Grant, 7,200 feet to northwest line and 16,800 feet to southwest lines, had sand at 2,044-53 feet which tested dry and has another sand at 2,056-59 feet. Killam-Duggan's No. 2 R. B. Cuellar, Cerrito Blanco Grant, 1,500 feet to northwest line and 2,700 feet to northeast lines, is drilling at 610 feet.

Rockdale Field—Milam

Wills Oil Co.'s No. 1 Akes, Rockdale Field, drilled in and tested a slight producer and is being drilled deeper. McCormick-Coffield & Hale's No. 1 Shelton, south 50 acres of the Shelton tract, is to start drilling within a few days.

(Continued on Page 87)

WILDCAT OPERATIONS IN SOUTHWEST TEXAS; TEST IN MAVERICK COUNTY

By B. D. Stevenson

SAN ANTONIO, Tex., July 11.—Outside of the new tests to be started by the Rycade Petroleum Corp. in Maverick County on the Chittim ranch, the past week has been very quiet in Southwest Texas. Two tests are to be made soon in Gonzales County, previously announced but delayed. Rainy weather has delayed field operations to some extent, but filled up earthen tanks so as to make water plentiful. Martin Oil & Development Co. expected to have casing at No. 1 Preston in Gonzales which has been standing at 1,570 feet ready to make a test, and a test is also to be made in No. 2 Elder, located a couple of miles northeast of it and belonging to the Gonza Petroleum Co.

The Texas Company has started drilling its No. 1 Beatty in the Dale territory in Caldwell County, which is a wildcat that will get attention because of the large number of tests drilled on that structure previously. In Medina County, the Medina Oil Co. pulled in the derrick of its No. 1 Taylor, with the hole at 1,000 feet. This is the well that opened a little pool south of Hondo at only 356 feet and made quantity of oil very large in proportion to its depth. It actually produced over 100 bbls. the first day. It was originally intended to be a deep test till it ran into this shallow oil. Now it is to be carried down as deep as the tools will take it.

Tests in DeWitt, Zavala and other places that are due to start or have started are shut down waiting to clear up titles before going any farther.

Duval County

Schlessinger Oil Corp.'s No. 2 Hahl, Survey 60, is location 330 feet to north line and 1,650 feet to east line. National Oil Co.'s No. 1 Ball, Survey 16, at 450 feet to north line and 150 feet to east line, is rebuilding derrick and moving in machinery. Humble-Reiter-Foster's No. 6 Kohler, Survey 400, at 60 feet to west line and 660 feet to south line, has a sand at 2,283-29 feet. Humble Oil & Refining Co.'s No. 2 Welder-Woods, Survey 102, located 5,280 feet to south line and 4,500 feet to east line, is drilling at 2,069 feet in sandy shale. Dixie Oil-Southern Crude's No. 1 Gray, Survey 316, at 330 feet to NE cor., is standing at 3,125 feet.

Hidalgo County

Queen City Oil & Gas Co.'s No. 1 Adams, Block 82, Lot 1, Capisallo district, at 1,709 feet is showing strong gas pressure.

Jim Hogg County

Holden and others' No. 3 Jones, Block 136, Share 27, located 330 feet to east line and 440 feet to north line, has resumed drilling at 1,471 feet. Harry Hamilton and others' No. 1 Holbien, Block 44, at 158 feet to south line and 363 feet to west line, is drilling at 2,220 feet.

Starr County

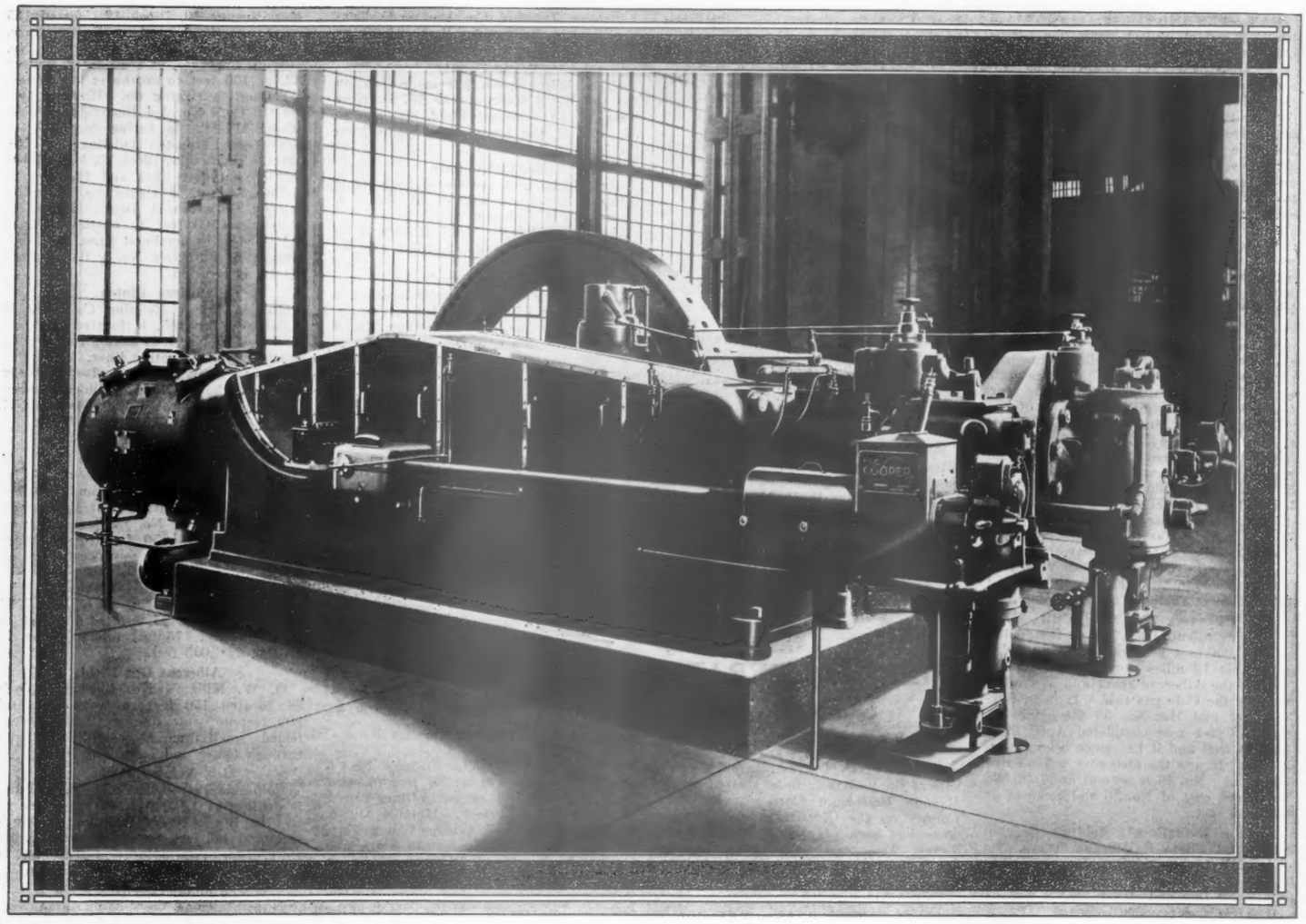
Ramsey & Maxey's No. 1 well, Survey 301, located 150 feet to northwest lines and 2,400 feet to west lines, is moving on. Commonwealth Oil Co.'s No. 1 Garcia, Survey 538, located 2,722 feet to south line and 2,102 feet to west line, is standing at 1,281 feet. Southern Exploration's No. 2 Russell, Share 173-B, Porcion 69, at 150 feet to north and 950 feet to west lines, is standing rigged up. Milham Corp.'s No. 2 Salinas, Porcion 111, at 11,360 varas to west line and 800 varas to north line, has set casing at 4,279 feet.

Webb County

Rio Grande Oil Co.'s No. 1 Urbahn, Santo Tomas Tract, 10,000 feet to south line and 20,000 feet to east line, is drilling in hard-packed sand at 1,881 feet. O. W. Killam's No. 2 Billings, SE NW

(Continued on Page 92)

COOPER



Ask Yourself This Question

Is it the engines themselves or the reputation for service and fair dealing of the company building them?

Some say one while others claim the other is responsible for the increasing preference shown Cooper Gas Engines and Compressors.

Meantime we are mighty busy—and happy—serving the steadily increasing number of boosters for both the engines and the service.

THE C. & G. COOPER COMPANY, MT. VERNON, OHIO

1605 Kirby Bldg., Dallas
504 Kennedy Bldg., Tulsa
317 Bank of Italy Bldg., Los Angeles

Activity Curtailed in Gulf Coast Area

Spindletop Deep Sand Section Shows Decline. Little New Work and Flush Output of Completions Small

By P. L. McGreal
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., July 11.—With the holiday intervening the week ending July 9 was the dullest of the year to date in the Gulf Coast division. No increase in activity in the Gulf Coast region is anticipated until the market for the crude advances.

The deep sand section of the Spindletop Pool started to slump on the last day of the week declining to 56,922 bbls., the daily average for the 24 hours preceding.

The Texas Company's No. 1 Garret, located one-half mile north of production, is showing some oil in sand and shale around 5,400 feet.

Twenty wells were completed in the pools during the week, of which 10 were dry and one a salt water hole. The new production is only 2,315 bbls., compared with 5,065 bbls. the previous week.

Two deep holes were abandoned in the Spindletop Pool, one at 6,515 feet and the other at 5,840 feet. A worked-over well there started heading 600 bbls., which is the only producer during the week. The Gulf Refining Co.'s No. 5 Lutcher-Moore in the Stark Pool in Calcasieu Parish, Louisiana, completed last week as a 1,500-bbl. well at 4,760 feet, is flowing 300 bbls. this week, 41 gravity oil. The Gulf company abandoned No. 6 Industrial Lumber Co. at 4,133 feet in crystalized lime. No. 7 Industrial Lumber Co. is rigging, located about 1 mile south of production.

The estimated daily average gross production for the week is placed at 148,840 bbls. compared with an estimate of 153,205 bbls. for the week before. It is divided as follows:

Pool—	Daily Av.
Boling	2,025
Batson	1,315
Blue Ridge	4,325
Big Creek	3,320
Barber Hill	1,060
Dayton	30
Damon Mound	835
Edgerly (La.)	1,200
Goose Creek	8,450
Humble	4,415
Hull	15,470
High Island	175
Jennings (La.)	1,050
Lockport (La.)	7,400
Markham	440
Nash	1,150
Orange	4,975
Orchard	95
Pierce Junction	6,240
Piedras Pintas	100
Spindletop	60,300
Saratoga	1,230
Sour Lake	4,275
South Liberty-South Dayton	2,890
Stark (La.)	800
Vinton (La.)	4,950
Welsh-Anse La Bute (La.)	25
West Columbia	9,150
*Miscellaneous	1,150
Total	148,840

*Includes Nacogdoches, Washington and Kleberg Counties in Texas and Cameron, Calcasieu and Iberia Parishes in Louisiana.

Southwest Texas

The estimated daily average production of the fields of Southwest Texas for the week ending July 9 follow:

Luling	15,900
Mirando	12,400
Somerset	1,210
Calliham	25
Rockdale	1,115
Lockhart	2,000
Total	32,650
Grand total for week	181,490
Total last week	186,735
Decrease	5,245

Spindletop Declined

The south Louisiana pools are credited with 15,975 bbls. of the gross, which is a decrease of 455 bbls. from the previous week's figures, the loss being in the Stark Pool.

Spindletop is off 1,700 bbls. and Hull declined 631 bbls. Big Creek fell off 430 bbls. and Pierce Junction 985 bbls.

The south Louisiana pools made a better showing than do those in coastal Texas. In the Edgerly Pool, the Rex Petroleum Co.'s No. 6 Hunter is flowing 400 bbls. of 29.1 gravity pipe line oil at 3,490 feet. It is on a three-eighths inch choker. Twenty feet of 4½-inch screen was set. It is on the north side, where several deep sand wells have been completed recently. The well started flowing 500 bbls.

The Rex Petroleum Co.'s No. 7 Hunter is sidetracking at 3,965 feet. The Gulf Refining Co.'s No. 42 Bright-Penn is around 3,140 feet. The Hercules Oil Co.'s No. 2 Paraffin is drilling at 3,175 feet. The Green Oil Co.'s No. 8 Moore is below 2,900 feet. C. M. Crotty's No. 12 Lilliard is below 2,300 feet and fishing. The McDaniel-Ellis Co. made a location for No. 1 Ecker.

In the Lockport Pool, the Vacuum-Gulf companies' joint No. 4 Friedberg & Wolf is flowing 600 bbls. at 3,100 feet.

The same companies are jointly drilling No. 6 Miller around 4,500 feet. No. 16 Miller is fishing at 4,700 feet; No. 17 is drilling around 3,800 feet, and No. 18 is starting. No. 5 Farquhar is at 4,980 feet and No. 6 is fishing at 3,785 feet. No. 2 Friedberg & Wolf will be deepened. A location has been made for No. 5 Bordaages.

The Texas Company's No. 3 Latrielle, in the Jennings Pool, deepened to 2,000 feet, is flowing 200 bbls. by heads. The Mentau Oil Co. abandoned No. 2 Pierce there at 2,100 feet.

The Coastal Fuel Oil Co.'s No. 94 Crowley is drilling around 3,100 feet. Ashber-Balyard Oil Co.'s No. 1 S. F. S. is working over at 1,550 feet. The Gulf Refining Co.'s No. 1 Lockelt is rigging.

In the Vinton Pool, the Louisiana-Colorado Oil Co.'s No. 1 Johnson will pump at 2,500 feet.

Outside of the Pools

At Sweet Lake in Cameron Parish, 35 miles south of Lake Charles, the Pure Oil Co.'s No. 4 is around 4,464 feet and No. 5 is setting 8¾-inch casing at 4,500 feet. The Yount Lee Oil Co. abandoned No. 1 Gulf Land Co. at Hackberry Dome at 4,745 feet and is preparing to set casing in No. 4 State Land at 4,890 feet. The Calcasieu Oil Co.'s No. 1 Caldwell there is around 3,100 feet. The Border Research No. 1 in Sabine Lake, off Johnson's Bayou, is around 2,745 feet.

In Calcasieu Parish, the Union Sulphur Co.'s No. 720 fee, off the Sulphur Dome, is waiting cement to set at 4,390 feet. Doctor Hintzse's No. 1 Binksentein is fishing at 4,260 feet. The Border Research Co.'s No. 1 in Calcasieu Lake is around 5,120 feet.

In St. Mary Parish, the Louisiana Exploration Co.'s No. 1 West Cote Blanch is around 1,000 feet. Border Research's No. 1 in Grand Lake is idle at 4,520 feet. The Rycade Petroleum Co. is recovering a rig from the Atchafalaya River, which was under water during the recent floods. The test was abandoned before the flood.

A location has been made for No. 1 Thibodeaux, a joint test by the Gulf Refining Co., Stark Brown and Dibert in La Fourche Parish.

Coastal Texas Pools

The Navarro Oil Co. abandoned No. 2-A Robinson in the Blue Ridge Pool at 3,125 feet. Its No. 2-B Robinson is drilling around 1,900 feet with a location made for No. 3-A. The Gulf Production Co.'s No. 15 Blakely is at 3,455 feet with a location for No. 10. B. W. E. Woodruff's No. 2 Adams is around 650 feet. The Overly Production Co.'s No. 1 Blakely is below 5,000 feet. Abercrombie Oil Co.'s No. 3 Robinson is rigging.

In the Big Creek Pool, the Gulf Production Co.'s No. 29 Davis is rigging. No. 24 Davis is drilling deeper.

The Humphreys Corp.'s No. 4-B Kirby on the east side of the Barber Hill Dome in Chambers County is pumping 265 bbls. at 4,150 feet. The Humble Oil & Refining Co.'s No. 1 Kirby there is drilling around 4,600 feet.

In the Orange Pool, the Brownie Babbittee Oil Co.'s No. 12 McLean, a worked-over well, is bailing at 4,090 feet.

The Gulf Production Co.'s No. 4 Granger is drilling below 4,500 feet. The Texhoma Oil Co.'s No. 16 Chesson will be deepened, as will the Rycade Petroleum Co.'s No. 14-B Cow Bayou. The Tiller Oil Co. has a location for No. 3 State Land.

In the Hull Pool, the Republic Production-Houston Oil Co.'s No. 84 Dolbear is pumping 75 bbls. at 2,400 feet. The Texas-Vacuum companies' joint No. 5 Hannah will make a pumper at 3,450 feet. The Gulf Production Co.'s No. 10 Phoenix is bailing at 2,875 feet, after being worked over.

The Gulf's No. 73 Phoenix will be deepened. No. 21 Baldwin is drilling around 345 feet. J. H. Antillery's No. 5 Abel will pump at 2,400 feet. The Republic-Houston Oil Co.'s Nos. 53 and 63 Dolbear are both being worked over. The Texas Company's No. 3 Taylor is drilling at 2,835 feet and the Mecom Oil Co.'s No. 1 Taylor is at 1,875 feet. The Big Dome Oil Co.'s No. 2 Palmer is at 996 feet. The Empire Gas & Fuel Co.'s No. 26 Barngrover is a location.

At Pierce Junction, Anderson & Plummer's No. 1 Whitehead, which came in three weeks ago flowing 2,000 bbls. and sanded, has been cleaned out and is flowing 300 bbls. No. 2 is rigging. The Gulf Production Co.'s No. 20 Taylor was abandoned at 4,000 feet. The Navarro Oil Co.'s No. 2 Cain is bailing at 4,250 feet.

M. J. Bashara's No. 1-B is drilling around 3,145 feet. The Gulf Production Co.'s No. 3 Jones fee will be drilled deeper. Smith and others' No. 2 Parson is drilling at 3,835 feet. The Rio Bravo Oil Co.'s No. 3 Bender is deepening. No. 5 Bender is around 1,600 feet. No. 8 Settegast is at 2,054 feet. Locations have been made for Moody Oil Co.'s No. 2 Whitehead and Leonard Petroleum Co.'s No. 1 Gilmore.

The Texas Company got salt water in No. 23 Arnold in the West Columbia Pool at 4,000 feet. No. 83 Hogg is rigging to start drilling.

Drilling Operations

At Spindletop, the Gulf Production Co.'s No. 8-A McLean was abandoned at 6,515 feet. No. 1 Mann was worked over into a 600-bbl. well at 3,750 feet. No. 12 Oakwood was abandoned at 2,200 feet as a junked hole. The Grayburg Oil Co. quit No. 1 McLean at 5,840 feet.

The Yount Lee Oil Co. has started Nos. 33 and 34 Gladys and No. 36 McFaddin.

The Gulf Production Co.'s No. 11 Oakwood Realty is drilling at 4,500 feet; No. 12 is drilling at 1,150 feet in second hole; No. 3 McLean is drilling at 4,850 feet; No. 5 is drilling at 3,150 feet and No. 8 Jeannette Mann is a new location. The Hines Oil Co.'s No. 2 Gordon is shut down at 3,400 feet. The Lord Mothner Oil Co.'s No. 2 Banks is drilling at 4,200 feet; No. 1 Wood is a location. The Sun Oil Co.'s No. 2 McLean will deepen; No. 12 is drilling at 5,930 feet; No. 13 is drilling at 5,135 feet; No. 11 is a derrick; No. 14 is drilling at 4,925 feet; No. 15 has a fishing job at 5,230 feet; No. 1 Price is drilling at 5,675 feet; No. 3 is drilling at 4,450 feet. The Rio Bravo will deepen No. 3 T. & N. O. The Texas Oil Co.'s No. 1 Garrick is drilling at 5,425 feet. The Magnolia's No. 5 fee is shut down at 5,200 feet; No. 4 is drilling at 4,375 feet; No. 5 is drilling at 5,110 feet; No. 6 is drilling at 3,775 feet; No. 2 fee "A" is a derrick.

The best wells in the deep sand section are: Sun Oil Co.'s No. 1 McLean, flowing 4,000 bbls.; Yount Lee Oil Co.'s No. 25 fee, flowing 4,000 bbls. and No. 28 McFaddin flowing 2,400 bbls. That company's Nos. 13, 15, 24 and 26 fee are all making over 2,400 bbls. each.

The Yount Lee Oil Co.'s No. 35 McFaddin is in an oil sand at 3,375 feet and No. 25 Gladys is reaming at 4,250 feet.

The McLean Oil Co.'s (formerly the Sun Oil Co.'s well) No. 11 Cade at High Island, in Galveston County, is drilling at 2,660 feet.

The Cove Oil & Gas Co.'s No. 1 Cotton, at Saratoga, is drilling at 500 feet.

The Sun Oil Co.'s No. 76 Paraffin, at Batson, is drilling at 1,075 feet. The Texas Company's No. 1 Sterling is drilling at 575 feet.

At Goose Creek the Humble Oil & Refining Co.'s No. 71 Simms-Smith is drilling at 4,700 feet; No. 72 is drilling at 2,350 feet. The Gulf Production Co.'s No. 14 Chapman Bryan is drilling at 4,100 feet; No. 7 Houston-Smith, is drilling at 2,775 feet. Mayfield's No. 7 Busch, after setting strainer at 2,060 feet, is standing. The Powell Oil Co.'s No. 6 Bryan will deepen. The Port Oil Co.'s No. 2 Grace Adey will deepen.

The Sun Oil Co.'s No. 3 Farmer on the northeast flank of the Boling Dome is drilling around 2,600 feet. No. 1 Farmer is working over. The Gulf Production Co.'s No. 1 Monroe is rigging.

The Rycade Petroleum Co.'s No. 16 Wisdom at Nash is drilling.

In the Humble Pool, Marsalia Brothers' No. 10 Long, Keene and others' No. 77 Herman and C. W. Harris' No. 1 Horn are drilling.

Miscellaneous

The Pure Oil Co. and Humphreys Corp.'s No. 1 Armstrong on the northeast flank of the Stratton Ridge Dome in Brazoria County is bailing 15 feet of sand with screen set around 4,268 feet. The well made a few heads of 30 gravity oil, while the hole was being washed. The Associated Oil Co.'s No. 1 Seaburn, 500 feet south of the Armstrong lease, is fishing at 4,000 feet. The Gulf Production Co.'s No. 2 Perry on the south side of the dome is around 3,180 feet.

The Humble Oil & Refining Co. abandoned No. 1 Bellville in the Racoon Bend district in Austin County at 4,165 feet. This section gave promise of a new field early in the year, two small wells having been developed around 1,100 feet, but deep drilling developed no oil-bearing sands. Mewis & Morgan's No. 1 fee in that county was abandoned at 1,500 feet.

Brazoria County

Allen Dome: Roxana Petroleum Corp.'s No. 4 Allen drilling at 3,435 feet. No. 1 Ranando, shut down. No. 1 Bernard River, which produced some oil and then sanded at 5,141 feet, will sidetrack. Clemens Dome: Roxana Petroleum Corp.'s No. 4 Clemens, drilling around 4,900 feet. No. 2-A Pabst is below 5,750 feet.

Harris County

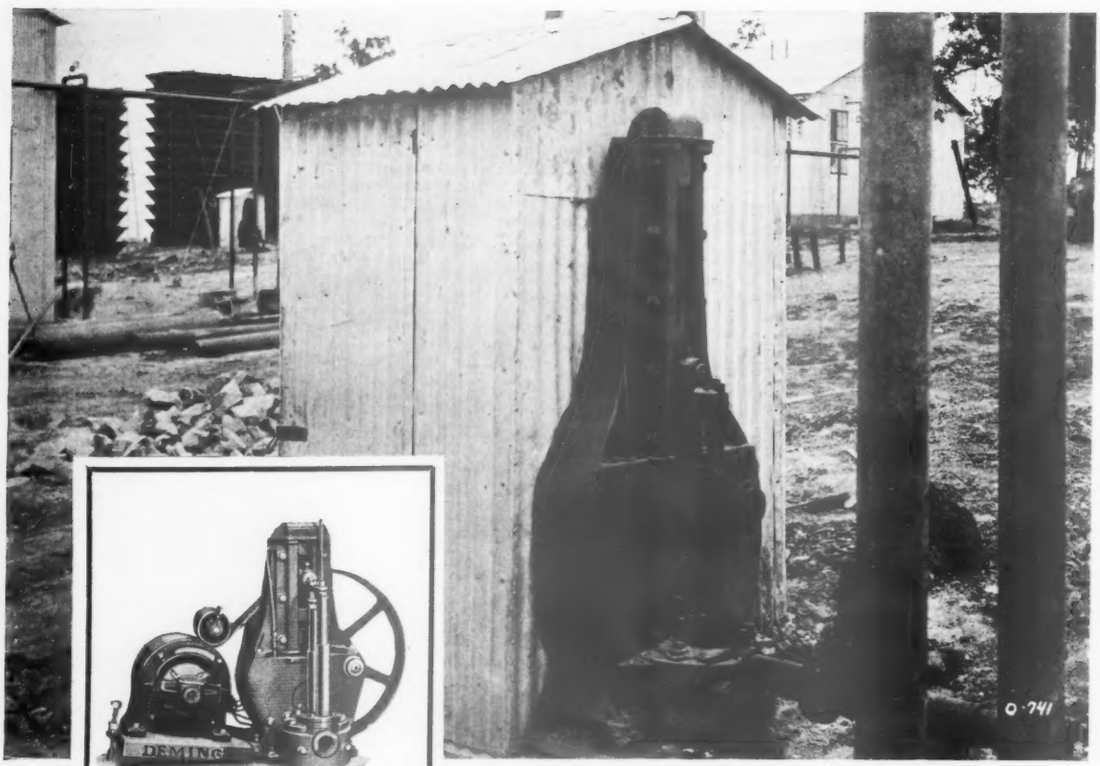
Dr. P. S. Griffith's No. 2 fee, north of Houston, sidetracking. Hockley Dome: Humble Oil & Refining Co.'s No. 1 Warren, drilling at 3,300 feet. Juanita Oil Co.'s No. 1 Kutsman, near Cypress, idle at 1,000 feet. Brain and others' No. 1 near Tom Ball, completed water well and rigged.

Fort Bend County

Long Point Dome: Gulf Production

(Continued on Page 81)

DEMING



Motor Driven Type 1062

Deming 1062 "Oil-Rite" Deep Well Pumping Head used by the Empire Company at the Lacy Gasoline Plant, Seminole, Okla.

When you install a deep well pumping head you expect returns in performance—not in repairs. The Deming 1062 "Oil Rite" Deep Well Pumping Head is designed for just one job—pumping—and it will do it day after day—month after month without interruption.

Simple in design—only six moving parts. Strong—all parts oversize and capable of heavier duty. Crankshafts and pinion shaft bearings—where the wear comes—easily renewable. Gears are machine cut.

Built for motor or belt drive. The Deming Catalog gives all specifications and data necessary to help you plan an ideal installation—send for it today.

THE DEMING COMPANY
Salem, Ohio

Distributed to the Oil Industry by

LOUISIANA OFFICE
405 Forest Ave.
Shreveport, La.

SMITH SEPARATOR COMPANY
Tulsa Okla.

TEXAS OFFICES:
924 Post Dispatch Bldg.
Houston, Texas
1402 Ft. Worth Nat'l Bank Bldg.
Fort Worth, Texas

Turner Valley Gets 42 Gravity Well

Dalhousie Producer Makes 190 Bbls. in First 24 Hours' Test. Two Miles South of Royalite Naphtha Holdings

By Victor Lauriston
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, July 9.—Oil of 42 gravity has been encountered in No. 5 test of Dalhousie Oil Co., an exploration subsidiary of Imperial Oil, Ltd., in the Turner Valley Field. A 24-hour test showed a production of 190 bbls. This well is in LSD 16, Section 30-19-2w5, about 2 miles south of the Royalite Oil Co. holdings.

The bringing in of this well places the Turner Valley Field in an entirely different light. Hitherto it has been noted for its wet gases. It now seems probable that the field will be a producer of crude oil, as well as wet gas containing a large proportion of crude naphtha. A theory has been entertained by at least one geologist that oil would be encountered if drilling was done at a sufficient distance from the gas-bearing zone. Oddly enough, the oil has been encountered in a different formation from that which has been productive of gas. Dalhousie No. 5 got its crude oil production in the Fernie shales, while the crude naphtha wells were taken down to the limestone, 700 feet lower. The development is a most interesting one, and appears to place a different aspect altogether on the Turner Valley Field.

Two of the Imperial Oil, Ltd., subsidiary tests are expected to strike gas very shortly. These are Dalhousie No. 1 and Royalite No. 7. The Turner Valley situation is more interesting now that it has been at any time since the phenomenal flow of wet gas was encountered by Royalite No. 4 in the late fall of 1924.

Dalhousie No. 1, LSD 4, Section 18-20-2w5, is drilling around 3,790 feet with the diamond outfit, with a fair wet gas flow. Dalhousie No. 6, LSD 10, Section 13-20-3w5, is rebuilding the derrick, recently destroyed by fire.

Home Oil Co.'s No. 1 producer, LSD 10, Section 20-19-2w5, has installed a stair drip and will make a test of the crude naphtha output of the wet gas flow, estimated at 6,250,000 feet a day. The well is making 35 to 40 bbls. a day of light crude, and is expected to make around 60 to 65 bbls. a day of crude naphtha.

Deepest Well in Canada

British Dominion Oil Corp., LSD 4, Section 5-20-2w5, is drilling through the cement plug put in at the bottom of the hole at 5,980 feet to overcome a bad caving. At this depth the British Dominion, which is on the east side of the Turner Valley, is the deepest well in Canada. The nearest wells in point of depth are the abandoned Imperial-Rice Creek No. 1, west of Nanton, at 5,747 feet; the Empire Oil & Natural Gas Co.'s test in the Fraser Valley, British Columbia, at 5,743 feet; the Imperial-Bow River No. 1 in the Jumping Pound district at 5,585 feet, and the Great West Oils' No. 1 in the Turner Valley at 5,370 feet. Mart and Millard Hovis have handled the drilling of the British Dominion, which has been in progress slightly more than a year with hardly a stoppage.

Calmont Oils, LSD 2, Section 1-20-3w5, has resumed drilling at 3,775 feet after running casing to the bottom of the hole. A spiral stem is being used for the deeper drilling. Stockmen Oils' No. 1, LSD 1-2, Section 27-20-3w5, is drilling at 4,710 feet in bands of lime and calcareous shale strata, apparently close to the Madison limestone. Spooner Oils' No. 1, LSD 12, Section 13-20-3w5, is drilling in the calcareous shales at 4,045 feet and is expected to get the deep lime between 4,300 and 4,400 feet. Vulcan Oils' No. 2, LSD 11, Section 13-20-3w5, is at 1,765 feet and drilling, with the 12½-inch casing being carried down behind the drill.

McLeod Oil Co.'s No. 3, LSD 16, Section 1-20-3w5, is drilling at 2,880 feet near the top of the Dakota sand, with a fair show of crude oil. McLeod Oil Co. at its adjourned shareholders' meeting at Calgary on June 29 elected the following directors: R. J. Hutchings, W. E. McLeod, George Cloakey, Sr.; J. G. Edgar, E. H. McLeod, Charles S. Smith, A. M. Berryman.

Illinois-Alberta Oil & Refining Co. is moving derrick timbers from Okotoks for its No. 2 test in LSD 14, Section 12-20-3w5.

Testing New Section

In the north end of the Turner Valley, Foothills Oil & Gas Co.'s No. 1, southwest quarter of Section 26-20-3w5, has spudded in with cable tools and is drilling at 100 feet. The well will be finished with a rotary outfit. This well will test a new section of the Turner Valley Field.

Okalta Oils No. 1, LSD 1, Section 1-20-3w5, after sidetracking 600 feet of casing has cemented the 12½-inch special casing at the former level of the well, 2,635 feet, and is making new hole.

Regent Oil Co., LSD 16, Section 1-20-3w5, got a show of oil at 2,210 feet. The oil, a dark green crude, came from a hard and sharp Dakota sandstone. The test is now drilling at 2,256 feet.

New Valley Oils, LSD 4, Section 6-21-2w5, is reported to have resumed drilling at 1,550 feet after the winter shutdown. The plant is running double tour.

New McDougall-Segur No. 2, LSD 14, Section 12-20-3w5, is drilling below 1,000 feet, with 15½-inch casing down to 945 feet.

Government road builders are progressing with the work of grading and improving the roads into the Turner Valley which at present are fairly good. Some graveling is being done.

In the Jumping Pound district west of Calgary, Imperial Oil, Ltd.'s Bow River No. 1, LSD 15, Section 12-25-5w5, is fishing at 5,585 feet. In the Highwood district, Imperial-Highwood No. 1, LSD 3, Section 36-18-3w5, is drilling around 2,400 feet.

Moose Mountain

In the Moose Mountain district, Signal Hill No. 2, LSD 9, Section 34-23-5w5, which recently resumed work, is reported drilling around 1,600 feet. In the Morley Reserve area, Gold Coin Oils, Ltd., is at 2,800 feet and drilling. Wabash Oils is drilling below 200 feet. To the north, in the Ghost River area, a California syndicate has secured a block of leases covering more than 6,000 acres near Grease Creek, in Township 29, Ranges 6 and 7w5. The California interests had a geological party on the ground this spring, preparatory to taking over the acreage.

In the Gleichen district, Oil Producers Corp. of Canada has a derrick up in LSD 4, Section 24-22-23w4, and machinery is being moved in. In the Acadia Valley district, Fuego Oils, northeast quarter of Section 34-25-4w4, is reported to have resumed drilling at 2,860 feet. In the Altario district the Rosebud Syndicate test, LSD 5, Section 15-33-2w4, is shut down at 450 feet.

Devenish Area Tests

In the Skiff Field, Devenish Petroleums' No. 1, LSD 5, Section 27-5-14w4, is shut down pending arrangements for marketing the production. It is reported that tentative arrangements have been made for the Imperial Oil, Ltd., refinery at Calgary to take the product, which will be trucked to Skiff and thence transported by tank car to the refinery. All the available tankage, 1,000 bbls., has been filled with crude, and the oil at last reports was standing 3,000 feet in the 3,090-foot hole. The well has been fitted with a control head and no further swabbing will be done; but when arrangements are made for handling the production a gas lift pump will be installed and a definite capacity test made. The well swabbed 250 bbls. a day.

It is reported that at least two more wells will be drilled on the Skiff structure by other companies which have secured acreage from Devenish Petroleums, Ltd. It is also unofficially reported that negotiations are under way between the company and Imperial Oil, Ltd., whereby the two companies will test practically the entire Devenish Petroleums holdings of approximately 70,000 acres. It is understood that Imperial Oil, Ltd., will develop half the acreage on a royalty basis and that the Imperial Oil, Ltd., refineries will take any production secured by both companies. If this is so, the drilling outfit from the abandoned Erickson Coulee No. 1 will probably be moved to Skiff for a test by Imperial Oil, Ltd.

In the Foremost Field, Canadian Western Natural Gas Co.'s No. 8, LSD 12, Section 5-6-10w4, is reported at 1,580 feet and drilling.

In the Warner district, Gas Production & Transportation's No. 1, northeast quarter Section 21-4-18w4, has the derrick up and is installing machinery.

In the Pincher Creek district, Mount Royal Oil Co.'s No. 1, LSD 4, Section 7-6-1w5, is reported shut down at 250 feet waiting for casing. It is reported that a geological party representing H. L. Doherty & Co. is looking over some acreage in the same general area.

On the Montana side, the Pan-Canadian Oil Co. of Gravelbourg, Saskatchewan, with field office at Shelby, Mont., has taken over from the Hungerford-Radigan-McGregor group some acreage in the Wilcox Pool, Section 7-34-1w.

Along Liard River

In the unmapped country adjoining the Liard River, in northern Alberta and northern British Columbia, a party of Hudson's Bay Marland Oil Co. geographers and geologists have been at work since May 20. Their survey is expected to continue till the end of the season, about October 1. The party is headed by J. V. Howell, chief geologist of the Marland Oil Co. of Texas, and is accompanied by J. McCusker of the topographical branch of the Department of the Interior at Ottawa. Mr. McCusker, who was the Federal Government engineer who surveyed the Peace River Block, is mapping the unmapped country in the Liard area for the Government. The party outfitted in Edmonton and traveled on the steamer D. A. Thomas via Peace River and Hudson's Hope before striking into the wild country. Radio is being used extensively in the work of the expedition, which is one of a number sent out by the Hudson's Bay Marland Oil Co. Every day at noon radio station CFCM at Calgary broadcasts time signals and messages and again at midnight the same signals are sent. These time signals assist the engineers of the party in taking solar observations. Portable radio sets

(Continued on Page 115)

FOURTEEN COMMERCIAL WELLS COMPLETED IN SUNBURST FIELD

By Frank B. Taylor
Staff Correspondent, Rocky Mountain Area

CASPER, Wyo., July 9.—The Sunburst Field in Montana recorded a large number of completions in the past week. Fourteen wells came in and every one is a commercial producer. The Homestake Exploration Co. has a 75-bbl. well on Section 21-35-2 and one on Section 4-35-2 good for 50 bbls. Both wells are in the Ellis sand at about 1,500 feet. A third completion by this company found production in the Sunburst sand at 1,260 feet and will make a pumper.

The Hill interests completed a well on Section 21-35-2 in the Ellis sand at 1,450 feet that will do 20 bbls. and one on Section 27-35-2 that will make 15 bbls. at 1,450 feet in the Ellis sand.

The Hill and O'Neil interests have a good well on Section 27-35-2 in the Ellis sand at 1,458 feet that will make 350 bbls. and one on Section 27-35-2 that will make 100 bbls. in the Ellis sand at 1,469 feet.

The Northern Natural Gas Co. drilled in a good gasser estimated at 7,500,000 feet on Section 11-32-2 in the Ellis sand at 1,520 feet.

The California Petroleum Co. has a small pumper in the Ellis sand at 1,428 feet on Section 28-35-2 and another on Section 15-35-2 that will do 30 bbls. in the Ellis at 1,435 feet. On Section 28-35-2 the company has a well making 300 bbls. in the Ellis at 1,475 feet.

The Odgen Kevin Oil Co. on Section 20-35-1 has a 50-bbl. well in the Ellis at 1,542 feet.

The Waceka Oil Co. on Section 18-35-1 is making 25 bbls. in the Ellis sand at 1,605 feet on Section 18-35-1.

Edwards and others have a producer making 10,000,000 feet of gas on Section 13-32-2 in the Ellis sand at 1,520 feet.

Utah

The oil men are diehards on the question of Utah's having petroleum in commercial quantities in the Moab district. In spite of the poor results of the past two years, several wildcats are drilling and there is much discussion of a well being drilled on the flank of the Cane Creek Dome to see if production lies there.

The Duchesne Dome, once a promising structure of eastern Utah, is now being discussed and the well drilled there by the Utah Southern Oil Co. several years ago is to be opened and drilled deeper if negotiations between the Utah Southern Oil Co. and the Midwest Refining Co. reach a successful conclusion.

The Utah Southern Oil Co., General Petroleum Co. and others are in a red shale at 3,061 feet on the Cedar Mesa wildcat, San Juan County. On the East anticline, San Juan County, the Utah Southern Oil Co. had to shut down work on the wildcat there because of the floods in the valley from the Colorado River.

On the Elk Ridge Dome, the Midwest Refining Co. has its test at 2,560 feet and drilling in a hard lime formation.

Wyoming

On the Garland structure in Big Horn County, Wyoming, the Ohio Oil Co., drilling on Section 33-56-97, is setting casing at 3,225 feet after shutting off a commercial gas flow above. This well will test the deeper sands and if no production is found will plug back to the gas sand.

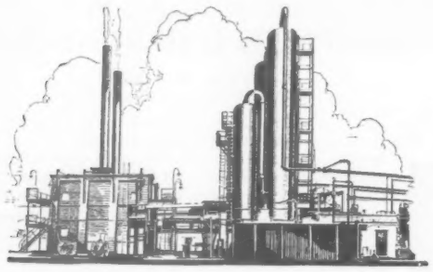
(Continued on Page 94)

KELLOGG PIPE STILLS

A COMPLETE SERVICE
from design to operation

To the refiner who is contemplating the erection of pipe stills and fractionation towers, Kellogg offers a complete service.

A service combining engineering, design, manufacture, installation and operation—every step under the supervision and direction of engineers who are specialists in refinery practice.



KELLOGG

CROSS CRACKING PLANTS—BUBBLE TOWERS—PIPE STILLS—HEAT EXCHANGERS—GRAY TREATING TOWERS—TREATING PLANTS

THE M. W. KELLOGG CO., 7 DEY STREET — NEW YORK

KANSAS CITY, MO., 700 BALTIMORE AVE. — SAN FRANCISCO, CAL., 444 MARKET ST.
LOS ANGELES, CAL., 1019 HELLMAN BANK BLDG.

New Fields Looming in California

Rincon-Seacliff Area in Ventura County Developing. Gulf Interests' Bakersfield Wildcat Promising Production

By L. P. Stockman
Staff Correspondent, California Fields

LOS ANGELES, Calif., July 9.—California wildcatters, judging by their aggressiveness in the face of present unsettled conditions, seem to have sanctioned the ancient philosophy that tomorrow never comes. At any rate, they are not letting any grass grow under their feet and unless all signs fail California will have another new field or two within the next few months. The Rincon-Seacliff area in Ventura County looks like an almost sure shot due to the persistent efforts of the Chanslor-Canfield Midway Oil Co. This concern has four wells under way, two of which, Nos. 1-A and 1-B, on the Hobson acreage, are showing oil and gas in quantities to warrant the expectation of a new field. Both holes are being carried down to secure as favorable a penetration as possible before completion. The exact depth is shown on the accompanying wildcat list.

The latest threat from a wildcat standpoint comes from the Bakersfield sector in Kern County where the Gulf interests are drilling a test under the name of the Pacific Eastern Production Co. This wildcat, while it does not present the possibilities of those at Rincon, looks exceptionally promising and stands an excellent chance of securing commercial production. Hoyt S. Gale, who geologized this area and located the test, is quite optimistic. Preparations are being made to run in a string of 8¼-inch and test immediately. An almost solid oil and gas sand has been cored between 4,346-90 feet. The texture of the sand varies somewhat but the porosity as a whole is favorable for excellent saturation. The most interesting feature is the depth at which the oil show was found. The Kern River, Mount Poso and Round Mountain fields near by are all shallow districts yielding heavy oil in contrast to 4,000-foot sand found at Bakersfield. The Pacific Eastern appears to have most of the potential oil land under lease, although there are several adjacent pieces of property which may get into the play. Two more very promising structures are due to be tested soon and both have all the earmarks of new fields. Structural conditions are favorable with perfect closure and visible evidence of oil and gas seepages in the vicinity. One of these potential fields is in Santa Barbara County where William (Brick) Elliott and R. D. Clark, and Roy N. Ferguson, who discovered the structure, have every possible acre tied up. The structure is one of the largest yet discovered and if it is found productive light oil can be anticipated.

Seal Beach

Several new wells in the Alamitos Heights section of the Seal Beach Field were started downward in search of the deep Wasem sand during the past week and this second zone will soon be tested out further by wells more favorably located than the discovery, No. 7 Wasem of the General Petroleum, which was an edge well in the upper, or Selover sand. The General Petroleum, incidentally, took Nos. 3, 5 and 6 on the Wasem lease off production last week and they are being redrilled and deepened. This particular group, however, will not result in a conclusive test nor indicate the total potentiality of the Wasem sand in as much as this lease is edge property. Seal Beach production has shown a very substantial decline since the last high point of approximately 75,000 bbls. per day, reached on June 21 as a result of deeper drilling in the Selover zone, and a further decline is to be expected. It is rather surprising that operators in the town lot area have not yet started another mad race with the deep Wasem horizon as their objective. Only a limited number of wells, compared with the possible total to be deepened, are headed downward.

Most of this deeper drilling so far has been confined to edge wells in the Selover sand, although several somewhat more favorably located, have since got under way. The delay in testing out the deep Wasem zone has been a source of much gratification to refiners in general, as the drop in production which has taken place during the past few weeks has afforded them a temporary breathing spell. Marketers, however, are minutely watching for the first evidence of production from the deep sand in the center of the town lot area, since this will show the extent of production during the rest of this year. The outstanding development from a production standpoint is the substantial decline in initial production of new wells and recompletions finished at Seal Beach during the past two weeks. This does not pertain to the older section of the Seal Beach Field, where the Marland, Standard and Associated are engaged in normal drilling, but refers specifically to the Alamitos Heights, or so-called town lot area, which has been under intensive development for some time. During the early stages of development and subsequent deeper drilling in the upper, or Selover zone, initial production of new wells and recompletions was considerably in excess of 1,000 bls. per day. For the past few weeks, however, most of the completions finished have been considerably less than this figure and daily production will therefore continue to decline until the deep Wasem sand enters the picture. Just what effect this second zone will have on production only the drill can tell.

Initial Lower

The initial production of completions in the Seal Beach Field during the past week ranged from a low of 490 bbls. to a high of 1,185 bbls., although most of the new wells finished were considerably less than the latter. The Petroleum Securities headed the list with four new wells, with an aggregate initial daily production of 2,241 bbls. This quartet took the maximum penetration available but, all of them registered smaller production than this company has been accustomed to. No. 1 Dotson, the deepest, is listed as a 490-bbl. flowing well from 4,905 feet, the hole being finished with a 6¼-inch oil string carrying approximately 250 feet of shop perforated. No. 1 Kindig and No. 1 Nicholson were both finished at 4,910 feet, the former being rated at 690 bbls. per day and the latter at 506 bls. No. 2 Williams, the last well finished by the Petroleum Securities, came in flowing 555 bbls. of clean 26.8 gravity oil daily from 4,895 feet. This company has several other wells nearing completion in the very near future, unless it is decided to carry them down to the deep Wasem sand at the last moment. The California Petroleum has just closed a rather busy week, during which the company finished one new well and recompleted two others, both deepened to take advantage of the maximum penetration available in the Selover zone. The new well was No. 1 McMasters, which came in doing 600 bbls. per day under a natural flow from 4,915 feet. The two recompletions were No. 1 Alamitos, carried down to 4,925 feet, and No. 3 Alamitos, finished at 4,918 feet. The former was brought in flowing 610 bbls. daily, while the latter started off doing 726 bbls. of clean 27.1 gravity oil.

The Universal Consolidated finished two new wells, No. 1 Judson, flowing 760 bbls. of clean 26.6 gravity oil daily from 4,980 feet, and No. 1 Patterson, making 906 bbls. of clean 26.6 gravity oil from an even 5,000 feet. The largest well finished was No. 1 Alamitos of the Travis Drilling Co., redrilled and deepened from 4,760 feet to 4,927 feet. This well is still a Selover zone producer but the 166 feet of additional hole made, changed a 360-bbl. well into a 1,185-bbl. producer. The California Eastern Oil Co. has just brought in No. 6 Judson flowing 870 bbls. of clean 26.1 gravity oil daily from 4,900 feet. This is the sixth producer finished by this company at Alamitos Heights and it should be followed by several more. The Marland did not add any new completions to its producing list but did succeed in returning No. 10 Selover to production after

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S-T-R	Depth	Status
General Pet., No. 1 Guiberson, Potrero	35- 2-14	Rig	wait. devel.
Cal. Eastern, No. 1 Cypress, Potrero	27- 2-14	5,043	suspended
Associated, No. 1 Cypress, Potrero	34- 2-14	4,450	suspended
Associated, No. 2 Cypress, Potrero	2- 3-14	4,905	gr. sd. drilling
Getty, George F., No. 1 Cypress, Potrero	35- 2-14	Rig	wait. devel.
Getty, Paul, No. 1 Cypress, Potrero	35- 2-14	Rig	wait. devel.
California Pet., No. 1 Sutton, Potrero	34- 2-14	Rig	dismantling
California Pet., No. 1 Armour, Potrero	35- 2-14	Rig	wait. devel.
Cole, Fred E., No. 1 Cypress, Potrero	35- 2-14	Rig	wait. devel.
Dill Oil Co., No. 1 Cypress, Potrero	35- 2-14	Rig	wait. devel.
Walker, Fred, No. 1 Cypress, Potrero	35- 2-14	Rig	wait. devel.
Getty, George F., No. 1 Tubbs, Rivera	25- 2-12	3,960	gr. sd. drilling
Circle Oil Co., No. 1 Pomeroy, Manchester	22- 3-14	4,128	suspended
Shell, No. 1 Mission, San Fernando	4- 2-15	2,902	hd. sd. drilling
Sou. Calif. Drlg. Co., No. 1 Matteson, El Segundo	1- 3-15	4,870	fishing
Carr, O. P., No. 2 Foster, San Juan Capistrano	13- 8- 8	2,590	gr. sd. drilling
Cardiff Oil Co., No. 1 Oceanside, San Diego	24-13- 4	2,805	suspended
O'Donnell, J. E., No. 2 Julian City, Los Angeles Co.	7- 4-14	....	location
Thomason & McCoy, No. 1 Rinz, Saugus	27- 5-16	516	sd. drilling
Southwest Pet. No. 1 Ramsauer, Watts	4- 3-13	1,462	set pipe
Reliance Inv. Co., No. 1 Leuzinger, Los Angeles Co.	8- 3-14	1,164	shut in
San Clemente Oil Co., No. 1 Peck, Hawthorne	20- 3-14	Mtl.	building rig
Shell, No. 1 Allec, Placentia	31- 3- 9	1,818	hd. sd. drilling
Standard, No. 1 Olive, Orange Co.	17- 4- 9	1,402	hd. sd. drilling
Standard, No. 1 Rindge, Palms	36- 1-15	Rig	in litigation
Hemet Pet. Co., No. 1 Ward, Riverside Co.	9- 5- 1	1,049	hd. sd. drilling

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Associated, No. 1 Smith, Kettleman Hills	12-28-18	2,043	suspended
Bolsa Chica, Well No. 1, Kettleman Hills	30-23-19	2,692	bail. oil
General Pet., No. 1 Burbank, Kettleman Hills	30-23-19	3,105	testing
General Pet., No. 2 Oschener, Kettleman Hills	26-22-18	3,370	gr. sd. drilling
General Pet., No. 1 Dome, Kettleman Hills	4-24-19	Rig	rigging up
C. C. M. O., No. 1 McGlashan, Kettleman Hills	17-24-19	4,250	gr. sd. drilling
South Coalinga, Well No. 1, Kettleman Hills	35-24-19	2,511	gr. sd. drilling
Gilbert, W. M., No. 1 Barritt, Kettleman Hills	20-23-19	Rig	rigging up
Ahlburg Gas Co., Well No. 1, Kettleman Hills	7-23-23	Rig	standing
Milham Explt'n., No. 1 Kettleman, Kings Co.	2-22-17	3,598	fishing
Shell, No. 2 Berlywood, Moorpark	32- 3-20	4,064	hd. sd. drilling
C. C. M. O., No. 1 Hobson, Ventura Co.	22- 3-24	6,545	heavy gas
C. C. M. O., No. 1-B Hobson, Ventura Co.	16- 3-24	4,345	O. S. drilling
C. C. M. O., No. 1 State, Ventura Co.	17- 3-24	150	suspended
C. C. M. O., No. 1 U. S., Ventura Co.	17- 3-24	Mtl.	building rig
Continental Oil Co., No. 1 Newhall, Ventura Co.	36- 4-18	2,595	testing
Continental Oil Co., No. 1 Burham, Ventura Co.	22- 5-18	2,690	gr. sd. drilling
Milham Explt'n., No. 1 Sexton, Ventura Co.	19- 3-22	7,100	fishing
Standard, No. 1 Camarillo, Ventura Co.	29- 2-20	5,475	hd. sd. drilling
Standard, No. 1 Montalvo, Ventura Co.	17- 2-22	6,264	hd. sd. drilling
Petroleum Sec., No. 1 Diablo, Ventura Co.	4- 4-18	2,740	hd. sd. drilling
Parkford, E. A., No. 1 Strathern, Ventura Co.	5- 2-18	3,495	hd. sd. drilling
Star Petroleum, No. 1 Canet, Ventura Co.	13- 3-23	5,281	sd. sh. drilling
Richfield, No. 1 Janes, Ventura Co.	16- 5-18	3,509	gr. sd. drilling
Richfield, No. 27 Piru, Ventura Co.	35- 5-18	1,580	gr. sd. drilling
Milham Explt'n., No. 2 Buttonwillow, Kern Co.	8-28-23	4,662	clean. out
Milham Explt'n., No. 3 Buttonwillow, Kern Co.	7-29-24	4,001	test for gas
Pacific Eastern, No 1 Bakersfield, Kern Co.	6-30-28	4,390	O. S. set pipe
Kerwin & Seal, No. 1 Edison, Kern Co.	4-30-29	....	rig foundation
Royal Pet., No. Machado, Kern Co.	31-30-28	Mtl.	building rig
C. C. M. O., No. 1 Quinn, Delano	23-25-27	1,940	hd. sd. drilling
Miocene Oil Co., No. 1 Bluff, Kern Co.	34-27-28	Rig	rigging up
Muroc Dev. Co., No. 1 Rosedale, Kern Co.	13-29-26	1,498	abandoning
Standard, No. 1 Bacon, Kern Co.	27-28-20	3,865	br. sh. drilling
Petroleum Sec., No. 1 Aniotz, Monterey Co.	2-22- 9	2,425	hd. sd. drilling
Birch Oil Co., No. 1 Porterville, Tulare Co.	13-20-26	150	suspended
Richfield, No. 1 Wreden, San Luis Obispo Co.	10-29-17	721	land pipe
Shell, No. 1 Cowell, San Mateo Co.	8- 6- 5	3,846	hd. sd. drilling
Shell, No. 1 Murphy, Petaluma	29- 5- 6	5,560	hd. sd. drilling
Shell, No. 1 Ielmorini, Sonoma Co.	14- 5- 7	1,694	hd. sd. drilling
Thomas & Hammill, Well No. 1, Alameda Co.	16- 3- 3	1,122	hd. sd drilling
Continental Oil Co., No. 1 Sargent, Santa Clara Co.	31-11- 4	790	sd. drilling

TANKER SHIPMENTS FROM LOS ANGELES TO ATLANTIC AND GULF COAST PORTS

Commodity—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Crude oil	304,380	43,483	152,576	21,796	4,370,516	6,969,857
Fuel oil	.....	.....	70,678	10,097	4,360,632	3,067,576
Diesel and gas oil	.....	.....	.....	.....	1,613,369	1,327,460
Gasoline	337,070	48,153	74,192	10,599	4,144,868	3,321,818
Tops	.....	.....	.....	.....	.....	149,906
Coastwise—						
Crude oil	482,115	68,874	361,195	51,599	13,499,864	12,674,614
Fuel oil	320,138	45,734	307,074	43,868	6,063,903	4,624,736
Diesel and gas oil	34,142	4,877	14,356	2,051	183,650	125,672
Gasoline	70,959	10,137	345,439	49,348	4,404,446	3,730,319
Kerosene	3,745	535	1,355	193	60,343	138,950
Tops	.....	.....	.....	.....	62,570	341,139
Exports—						
Crude oil	54,535	7,776	.....	.....	1,580,894	1,983,042
Fuel oil	590,698	84,385	778,294	111,185	14,182,915	8,139,886
Diesel and gas oil	42,378	6,054	56,201	8 029	740,641	200,959
Gasoline	235,510	33,644	.....	.....	2,048,012	2,347,819
Tops	.....	.....	.....	.....	227,204	.....
Kerosene	59,491	8,499	96,647	13,807	1,245,891	1,181,888

TANKER SHIPMENTS FROM SAN FRANCISCO TO ATLANTIC AND GULF COAST PORTS

Diesel and gas oil	.....	.....	.....	.....	565,608	790,778
Gasoline	.....	.....	78,095	11,156	1,039,676	608,848
Tops	.....	.....	.....	.....	.....	73,698
Lubricants	.....	.....	.....	.....	170,886	157,147
Coastwise—						
Fuel oil	78,000	11,143	113,127	16,161	2,988,053	2,883,876
Diesel and gas oil	4,040	577	25,088	3,584	202,852	.....
Gasoline	158,366	22,624	197,031	28,147	2,660,097	2,310,120
Kerosene	34,561	4,937	.....	.....	145,681	203,902
Exports—						
Fuel oil	55,170	7,881	.....	.....	1,203,995	2,247,293
Gasoline	57,274	8,182	83,519	11,931	1,812,804	1,024,798
Kerosene	.....	.....	.....	.....	535,647	1,197,028
Lubricants	.....	.....	.....	.....	9,120	18,051

redrilling and deepening it from 4,776 feet to 4,970 feet. This rejuvenated well came back flowing 609 bbls. of clean 26.2 gravity oil daily. Present operations indicate the probability of a large completion list during the next few weeks with the Associated, Marland, Petroleum Securities, California Eastern and one or two independents heading the list as far as the number of new wells is concerned.

Huntington Beach

Two new wells and one recompletion were finished in the Huntington Beach Field. The latter was Fred B. Reuther's No. 1 Huntington, redrilled and deepened from 3,928 feet to 4,340 feet, from which depth it was returned to production doing 441 bbls. of 22.6 gravity oil daily. The Superior's No. 1 Groves, a new well finished at 3,979 feet, came in flowing 660 bbls. daily, and while the output was cutting in excess of pipe line specifications, it has since cleaned up very nicely. The Superior's next completion in this field should be No. 1 Berry and this well will be followed into production within a short time by No. 1 Jones. Barneson & Macklin successfully finished No. 1 Huntington early in the week and it came in doing 440 bbls. of clean 22.6 gravity oil daily from 4,381 feet, the hole being finished with a 6¾-inch oil string. Drilling operations at Huntington Beach are getting smaller week by week and hence completions from now on will be more or less infrequent. The Standard, as would naturally be expected because of its extensive holdings, is the largest single operator in this district at present. On the Pacific Electric lease which parallels the ocean front the Standard is drilling four wells and is rigging up rotary equipment in two more. On the Bolsa Chica lease the company is running two strings of tools, with a possibility that another hole may be started on either this property or Lease "B". The Standard is extending its retaining wall on the Pacific Electric lease another block east preparatory to the drilling of several new wells on this lease during the next five months. The Standard's retaining wall, constructed to prevent pollution of the ocean waters through drainage of sump water and also to safeguard its wells which parallel the ocean front, is now more than a mile in length.

Rosecrans

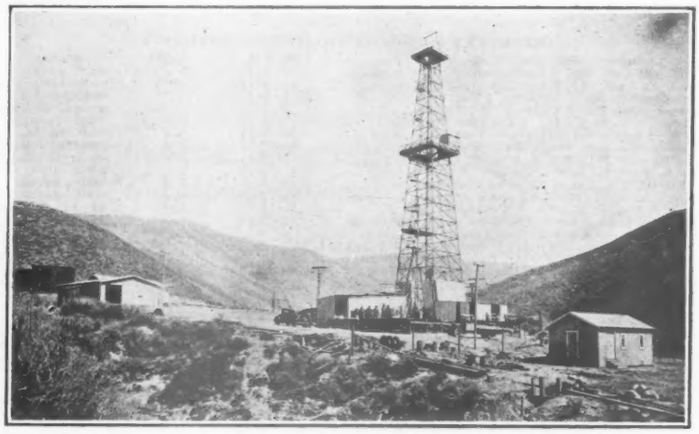
The Union Oil Co. recompleted No. 4 Trust in the southern part of the Rosecrans Field and listed it as a 105-bbl. flowing well from 6,499 feet. No. 4 Trust was originally finished several months ago but water trouble prevented clean production. The Union persevered, however, and that it succeeded in solving this difficulty is evidenced by the fact that the present cut does not exceed 2 per cent. No 4 Trust is not the deepest flowing well in California at present, as there are several deeper projects in the prolific Ventura Avenue Field. It is, however, the deepest flowing well in southern California, having supplanted E. J. Miley's record well, which has been off production for some time. Miley's No. 6 Athens, also in the Rosecrans Field, is the deepest producer ever finished, the oil coming from 7,591 feet. The Rosecrans Field, in addition to having the distinction of yielding the deepest producing oil well, has another outstanding feature. Gas had been known to be present for many years and old-timers claim that two gas jets burned continually for some 25 or 30 years previous to the discovery of oil. The jets were connected by two 1-inch pipes, the gas flame rising some 12 or 18 inches above the crude nipple used. This gas, which was used for cooking purposes by Japanese truck farmers, originated in an 85-foot hole drilled for water. The property upon which this gas well was located was acquired by General Rosecrans. Upon his death the property passed on to the general's son, Carl, who never ceased in his belief that oil existed in commercial quantities. He finally prevailed upon the Union Oil Co. of California to drill following the previous unsuccessful attempt of the Western Union Oil Co., due to its failure to go deep enough.

Long Beach

A. J. Delaney's No. 7 Rosenfield, a deep well in the Long Beach Field, ran true to form and showed a large production, as was anticipated. This deep well, drilled to 5,555 feet and finished with a 5⅞-inch oil string, tanked 1,040 bbls. of clean 30.2 gravity oil during its initial 24-hour test. It is flowing through a one-half-inch bean under a pressure of 780 pounds. Practically all of the drilling now under way in the Long Beach Field has the deep zone for an objective. The Shell has four deep wells under way on the Cresson lease, all of which are in proven territory and assured of commercial production. No. 7 Alamitos at 5,445 feet will also provide the Shell with considerable further geological data, upon the compilation of which a real deep test may eventually be drilled. An 8,000-foot hole in the Long Beach Field might throw considerable light on the possibility of drilling for oil in other southern California fields to depths now thought unwarranted. At any rate, this will undoubtedly be done at some future date and should prove of major importance to geologists in general. In addition to the Shell several other operators are engaged in deeper drilling in the Long Beach Field and, judging by the depth of their respective wells, additional deep completions can be anticipated.

Richfield-Brea Olinda

There were three new wells finished at Richfield and indications point to completion of several more shortly. On the Stern property the Union has finished Nos. 6 and 7 at an even 4,500 feet, 6¼-inch oil strings being utilized in each case. The former registered an initial of 304 bbls. while the latter came in doing 210 bbls. daily. The Union has four other potential producers under way on this property. The General Petroleum finished No. 4 Mullin as a 180-bbl. well from 4,467 feet and, since the company has six other drilling projects under way at Richfield, additional new wells can be expected during the next 30 days. The Chanslor-Canfield Midway, Continental and Associated should also list one or more new wells soon. The Shell finished a new well in the Brea Olinda Field and increased its daily production 560 bbls. The company's completed project is No. 6 Fisher, which went on production at 5,149 feet. The Shell took No. 2-A Puente, a recent completion, off production and the hole is being deepened. The Union's No. 3 Olinda is perhaps one of the most interesting drilling projects under way in the Brea Olinda Field as it has shown a much thicker and deeper oil sand than generally anticipated. The property was acquired from the Olinda Land Co. about two years ago. The Chanslor-Canfield Oil Co., which has been slowly but consistently developing its acreage in the Torrance Field, finished No. 71 Del Amo in that area early this week. This new well has been listed as a 140-bbl. pumper from 3,600 feet, the oil testing 18.2 degrees.



Chanslor Canfield Midway Oil Co.'s No. 1-A Hobson in the Rincon Mountains 6 miles west of Ventura Avenue Field.

Mount Poso

Drilling operations in the Mount Poso Field, the most northerly of the three oil districts on the east side of the San Joaquin Valley, has been reduced to a minimum and, since only enough oil is being produced to meet fuel oil or road building requirements, approximately 4,500 bbls. of daily production is shut in. The opening up of the Round Mountain Field in Kern County by the Elbe Oil Co. in May has resulted in the extension of wildcat activities to include the area lying between this field and the Mount Poso Field to the west. This intervening area had not been given much thought previous to the discovery of these two districts, but judging by leasing activities and protective acreage being secured by some of the larger companies, it will be the scene of several shallow but conclusive tests. Prospective potential acreage is also being acquired east and southeast of the Mount Poso Field along the Kern River bluffs, a short distance from where the Pan American, St. Helens Petroleum and others have heretofore drilled without success. The area in and around Edison, which lies about 15 miles southeast of Bakersfield, is also being tied up, although a large part of this territory has been leased for more than a year. Prospective wildcatters are also leasing in the Greenfield district which is south of Bakersfield and west of Edison. In other words, wildcatters have been exceptionally active in practically the entire area lying within a radius of 30 miles from Bakersfield in all directions.

Round Mountain

Only a limited amount of work has got under way in the Round Mountain Field and, while increased drilling can be anticipated during the next several months, it will be more or less of an exploratory nature, due to the absence of pipe line facilities and the undesirability of this heavy oil at present. Structural conditions at Round Mountain are somewhat similar to those existing at Mount Poso and it is logical to assume drilling methods will be quite similar. Rotary tools will undoubtedly be used and many holes will probably be cored solid from the grass roots down to completion. Only one well has actually been finished in the Round Mountain Field and many are wondering if the gas-oil ratio in this field is not somewhat similar to that prevailing at Mount Poso and along the Kern River front where only a comparatively small amount of gas is associated with the oil, the migration being due to gravity and pressure of edgewater. The Elbe's No. 6 Freeman, this company's second drilling project in the Round Mountain Field, approximately one-half mile south of the discovery well, has just passed the 1,500-foot level and correlations indicate the pay in this hole will be somewhat deeper.

Goleta

Drilling operations in the Goleta Field, approximately 12 miles west of the city of Santa Barbara, in contrast to the intensive work under way at Seal Beach, are going ahead at a normal rate. The Miley Oil Co. is running five strings of tools in this area and rig construction is being pushed ahead on No. 1 Ellwood, an offset to the California Eastern's No. 1 Doty, about a mile east of the discovery. Miley's deep test, No. 1 Goleta, is drilling ahead in an extremely hard formation at 4,365 feet and only a limited amount of footage is being made each tour. The Santa Barbara Oil Co. should complete its No. 1 Hollister during the week, as it is scheduled for an early test. No. 2 Hollister, the Santa Barbara's initial completion, is holding up steadily at 325 bbls. daily. The Barnsdall recently spudded in an outpost a little more than 2 miles west of the Miley discovery in Tecolote Canyon and if commercial production is secured the Barnsdall's holdings of approximately 150 acres will prove quite valuable as this high grade oil commands a premium. East of the Goleta Field, Clarence J. Berry picked up the shallow sand, logged in the discovery well at 450 feet, but since this zone is not productive Berry continued drilling with the Miley sand as his objective.

Northern California Wildcats

In view of the fact that attention has already been directed to the possibility of a new field being opened up in the Seacliff area approximately 6 miles west of Ventura, it will only be necessary to call attention again to the fact that this area looks exceptionally promising. The Oil and Gas Journal appreciated the value of wildcat operations to producers in general and has for many years carried wildcat operations in detail. All important prospecting work in California is carried in tabulated form in conjunction with the regular weekly development report. The Milham Exploration Co., which has been working on a wildcat a little less than 2 miles east of the Associated's No. 101 Lloyd in the eastern part of the Ventura Avenue Field, is expected to abandon

(Continued on Page 81)

HUMBLE MAKES PUMPER OF ITS CHEROKEE COUNTY SALT DOME WELL

By Special Correspondent

CORSICANA, Tex., July 9. — The Humble Oil & Refining Co.'s No. 1 Elliott-Clark, the discovery well in Cherokee County, has been put on the jack and is pumping 200 bbls. of oil and 800 bbls. of salt water. This is the well with which so much trouble has been experienced. It flowed for a time and then went to salt water and was plugged back, tested again and finally put on the jack. The well is pumping from 3,600 feet, 240 feet having been plugged off.

The failure of the Humble's No. 1 Elliott-Clark to flow is disappointing and will discourage any intensive drilling campaigns around the East Texas saline domes for the present. The well came in originally last March at 3,841-49 feet, making 38.6 gravity oil. It was shut in on account of lack of storage and failed to respond when opened again.

Same company's No. 2 Earle and Ragsdale, an offset on the north, was bailed and showed 150 feet of oil standing on the salt water in the hole. The gas pressure is not sufficient to flow it. It will probably be drilled a little deeper.

Humble company's No. 1 Reynolds Mortgage is drilling around 3,765 feet.

The Kirby Petroleum Co.'s No. 1, near Rusk, is drilling around 3,500 feet.

The Pandem Oil Co.'s No. 1 Bassett, 2 miles west of Kosse, Limestone County, is drilling around 5,450 feet.

The Humble Oil & Refining Co. has started a new test in Anderson County. It is No. 1-B Southern Pines Lumber Co., Main Survey. It was drilling below 600 feet.

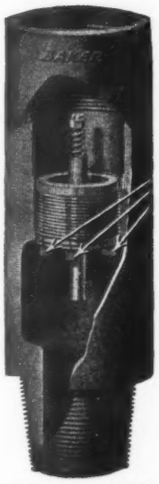
BAKER

Drill Pipe Float

Relieves Wire Lines, Brake Bands and Derrick Equipment of Overloads

Prevents Accidents — Promotes Safety

The advanced engineering principles and mechanical excellence peculiar to all Baker Oil Country Tools and Devices, is highly exemplified in the Baker Drill Pipe Float. Designed primarily to relieve wire lines, brake bands and derrick equipment of excessive strains when running in long strings, it has proven invaluable in the prevention of accidents and the promotion of safety in drilling wells ***at all depths.***



The Baker Drill Pipe Float.

It is positive protection against accidents from parted and falling drill pipe. Its design, construction and action is such as to provide positive and uninterrupted circulation at all times, and under the most rebellious conditions. An important and outstanding advantage is the accessibility of the back pressure valve, which can easily and quickly be replaced if necessary.

A feature which prolongs the life of the valve is the Baker construction which provides free fluid circulation with minimum resistance, eliminating excessive wear from abrasion, cutting replacement costs to the bone. Descriptive folder on request.

Specify Baker when Ordering

There is a something in all Baker tools which reflects the inventive genius as well as the oil field experience of their designer; and while this quality may not be apparent to the casual observer, in actual service it represents the vast difference between superb performance and mediocrity. For your protection all Baker products are painted a distinct gray and maroon. When ordering specify Baker and see that you get it.

BAKER CASING SHOE COMPANY

COALINGA, CALIF TAFT, CALIF.

Box L, Huntington Park, California

Export Sales Office: 25 Broadway, New York City

Mid-Continent Representatives:
B & A SPECIALTY COMPANY

220 East Brady St.
TULSA, OKLA.

BASCO

312 Keystone Bldg.
HOUSTON, TEXAS

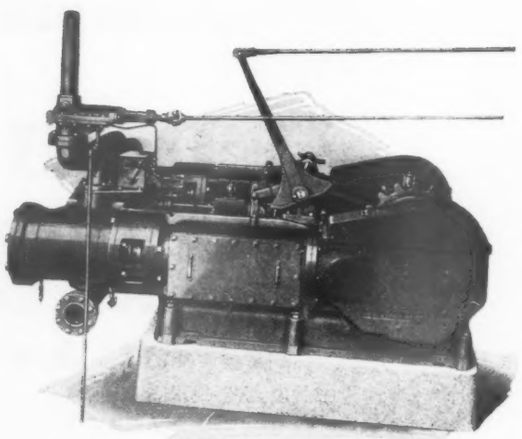
AJAX Cylinders--

AJAX ENGINES

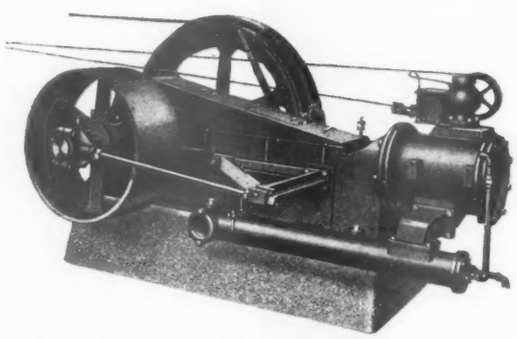
Only a ground finish gives a perfect service and absolute accuracy and roundness to cylinder walls.

Ajax and Ideal-Ajax Cylinders are now ground to one-thousandth of an inch on the most modern and accurate type of Heald Internal Grinder.

Ajax again takes precedence over all drilling engines in setting this new standard of fine workmanship.



Ideal-Ajax Twin engine now furnished with internal ground cylinders.



Ajax Steam Drilling Engine now furnished with internal ground cylinders.

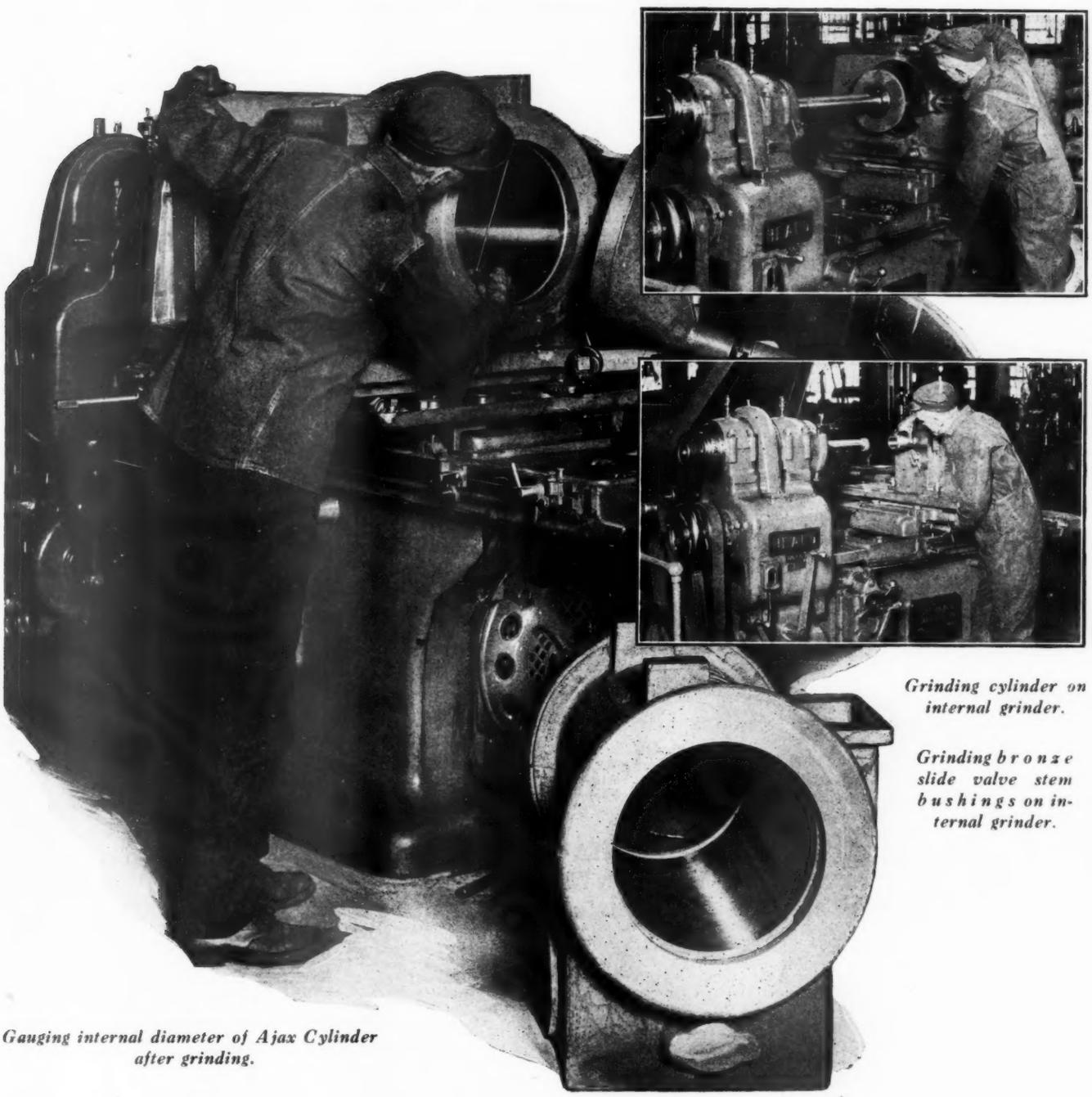
Made by
AJAX IRON WORKS
Corry, Pa.

DISTRIBUTED BY
THE NATIONAL SUPPLY COMPANIES

In every oil field.

AJAX-
DRILLING

are ground---



Grinding cylinder on internal grinder.

Grinding bronze slide valve stem bushings on internal grinder.

Gauging internal diameter of Ajax Cylinder after grinding.

STEAM ENGINES

Perry County, Ohio, Has-175 Bbl. Well

Guernsey County, Ohio; Clay County, West Virginia, and Greene County, Pennsylvania, Most Active Districts

By D. S. Wakenight
Staff Correspondent, Eastern Fields

PITTSBURGH, Pa., July 11.—There are but three sections in the southwest Pennsylvania, West Virginia and southeast Ohio Fields that show any activity at the present time. In the first named, Greene County has nearly all the work in the southwest. Henry district, Clay County, is at this time the most active in West Virginia. Guernsey County leads all other counties in southeast Ohio. This county is not only the most active, but is furnishing the most new production — more than West Virginia and southwest Pennsylvania combined. The Niagara lime is the producing formation in Guernsey County and the wells, if they have a high initial production, cannot be commended for their staying qualities. It is deep drilling and the excessive cost to drill and equip a well is very expensive.

Best Producers for Week

Only a very few good producers were completed during the week. In the southeast quarter of Section 20, Harrison Township, Perry County, Ohio, in deep sand territory, William Cline and others completed and shot in the Clinton sand a test on the Zanesville Coal Co.'s property. The well produced 40 bbls. the first 24 hours after drilled in and 175 bbls. the first 24 hours after shot. In Section 6, Jackson Township, Guernsey County, William McSmith & Co. got a 60-bbl. producer in the Niagara lime at No. 4 on the Andrew Slabie farm. In the southwest quarter of Section 11, Westfield Township, same county, the Pure Oil Co.'s No. 3 on the White Sisters' farm produced 45 bbls. the first 24 hours after shot.

In the northwest quarter of Section 28, Hopewell Township, Perry County, the Dunmar Oil & Gas Co. has completed in the Clinton sand a test on the Rose Sminchert farm, good for 15 bbls. a day. In the northeast quarter of Section 24, the Hutchinson Oil & Gas Co. has completed a second test on the W. H. Hutchinson farm. It is a gasser in the Clinton sand good for 1,025,000 feet.

Hocking County

In the southeast quarter of Section 13, Washington Township, Hocking County, the Gordon Oil Co.'s No. 3 on the W. H. Stone farm is a light gasser in the Clinton sand. This location is 700 feet in advance of production. In the southwest quarter of Section 17, Bell, Schott and others have completed in the same formation a test on the P. Lehman farm not good for more than 3 or 4 bbls. In Falls Gore Township, the Griffin Producing Co. has a 2,000,000-foot gasser on the Robert Tucker farm.

In Section 21, Fallsburg Township, Licking County, Sterl C. Brown has completed in the Berea grit No. 8 on the H. A. Noland farm. It produced 25 bbls. the first 24 hours after shot. In Section 21, same township, the Leonard Oil & Gas Co.'s No. 18 on the Myers heirs' farm is good for 15 bbls. a day.

In Lot 22, Newton Township, Licking County, C. R. Settles & Co. have completed in the Berea grit No. 3 on the Luther Long farm. It produced 18 bbls. the first 24 hours after shot. In Lot 30, Athens Township, Athens County, the Athens State Oil & Gas Co. completed in the same formation No. 6 on the Ohio State lands a 3-bbl. pumper.

The Upham Gas Co. has completed a test on the George Swingle farm, in section 1, Jefferson Township, Knox County. It is a duster. In Section 20, Harrison Township, Perry County, Scholl, Bloom & Larmer have a duster on the E. W. Bradshaw farm.

In Harrison Township, Perry County, the Melick Oil Co.'s test on the A. J. Burley farm is good for 15 bbls. a day in the Berea grit. In the same district, the Zanesville Coal Co. is due in the sand on its own property. Perry Sturm and others are drilling a test on the Catherine Stoneburner farm. In the same township, the Melick Oil Co. and the Pure Oil Co. are drilling tests on the Mason Springs and Toge heirs' farms. In Reading Township, English and C. B. Caywood are drilling on the E. Mendenhall and T. Wilson farm.

Licking County

In the southeast quarter of Section 1, Mary Ann Township, Licking County, the Ohio Fuel Supply Co. has completed in the Berea grit a test on the C. E. Evans farm. It is a light pumper. In the southeast quarter of Section 13, Clay Township, Muskingum County, the Ohio Fuel Supply Co. has a gasser in the Clinton sand at a test on the Ralph Cosgrave farm.

In the northwest quarter of Section 20, Salt Lick Township, Perry County, the Kachelmacher estate has completed a test on the Barney Bolt and Gardiner Coal & Iron Co.'s tract and it is a duster in the Clinton sand at a depth of 3,270 feet. In the southeast quarter of Section 16, Deerfield Township, Morgan County, the Ohio Fuel Supply Co.'s test on the Lydia Whitaker farm is dry in the Berea grit.

In the northeast quarter of Section 24, Brush Creek Township, Morgan County, the Daily Oil & Gas Co. has completed in the Berea grit a test on the F. Weller farm. It is a gasser. In the southeast quarter of Section 18, Brush Creek Township, Muskingum County, the Swingle Oil & Gas Co. has a gasser in the Berea grit at a second test on the Herlan Fisher farm.

West Virginia

In Henry district, Clay County, the South Penn Oil Co. has completed in the Big Injun sand No. 13 on the R. S. Kyle farm No. 2 and good for 10 bbls. a day. In Spencer district, Roane County, the Federal Oil Co. has completed No. 39 on the Provident Mining Co.'s tract. It is dry and has been abandoned.

In Clay district, Wirt County, V. B. Darby has completed a second test on the Little Kanawha Log & Tie Co.'s property. It is a gasser in the salt sand. In Sheridan district, Calhoun County, the Great Elk Oil Co. is drilling No. 27 and has the rig completed for No. 28 on the Samuel Bachman farm. In Grant district, Ritchie County, the Hope Natural Gas Co. has a gasser in the Big Injun sand on the T. A. Mason farm.

In Union district, Ritchie County, the Carnegie Natural Gas Co. has now drilled its second test on the A. R. Brake farm through the Berea grit to a total depth of 2,225 feet and dry in all sands. In Walker district, Wood County, Dollman & Kingsbury have started to drill No. 3 on the J. R. McCracken farm. The South Penn Oil Co. is drilling No. 22 on the Susan Grant farm, and No. 10 on the George F. Allbright farm is a rig. The Hope Natural Gas Co. has started to drill a test on the J. T. Cain farm, in Grant district, Ritchie County. In the same district, the Astron Oil Co. has started to drill on the Herman Strasberg farm.

Southeast Ohio

In Section 14, Franklin Township, Licking County, the Detex Oil Co. and others completed in the Berea grit No. 7 on the G. E. Cotterman farm. The well produced 6 bbls. the first 24 hours after shot. In the southeast quarter of Section 16, Hanover Township, the Hope Construction & Refining Co.'s test, on the J. C. Morrison farm, is a duster in the Clinton sand.

In Lot 5, Section 16, Chatham Township, Medina County, E. Redson & Son have a duster at No. 5 on the P. Wertz farm. In Lot 48, northwest quarter, same section, J. A. Rewof has a very light pumper at No. 4 on the Belle Garber farm. In Lot 31, Chester Township, Meigs County, Barneby & Frick completed No. 3 on the L. Genheimer farm showing for a 5-bbl. pumper in the Berea grit. It filled up 250 feet with fluid the first three hours after shot.

On Buff Lick Run, Big Sandy district, Kanawha County, the United Fuel Gas Co. has completed a test on the D. W. and Enna Taylor farm. It is good for 213,000 feet of gas in the Big Injun sand. The location is 2,000 feet north of the test on the J. B. Taylor farm. In Walker district, Wood County, the Ingram Farm Oil Co. has completed in the salt sand a second test on the A. G. Ingram farm, good for 3 bbls. a day.

Drilling Test Wells

In Lubeck district, Wood County, Park Bowser is due in the sand at a test on the Patrick Dolan farm. In Union district, Tyler County, the American Oil Development Co. is drilling to the lower sands its second test on the J. B. Cornell farm. In Troy district, Gilmer County, the Carnegie Natural Gas Co. has shut down to repair the rig on the Cecil McQuain farm. In Central district, Doddridge County, the Parkersburg Oil & Gas Co. is rigging up on the Leroy Ingram farm.

In Jefferson district, Pleasants County, John Flynn and others have completed a test on the Howard Pryor farm. It is a duster in the Squaw sand. In Union district, Ritchie County, the Hope Natural Gas Co. has a gasser in the Big Injun sand at a second test on the T. A. Mason farm. In Courthouse district, Lewis County, the same company has made a location on the I. C. Hill farm.

In Henry district, Clay County, the South Penn Oil Co. completed in the Big Injun sand a test on the W. G. McGraw farm. It is a duster, one of a very few that have been encountered in this development. The location is 1,200 feet east of the same company's test on the V. Bell farm.

Calhoun County

Godfrey L. Cabot's test, on the Floyd Barr farm, in Lee district, Calhoun County, is a 2-bbl. pumper in the Big Injun sand. In Center district, same county, the Hope Natural Gas So.'s test, on the Okey Parsons farm, is a gasser in the same formation. J. H. Pentz's second test on the Soloman Kyle farm, in McElroy district, Tyler County, is dry in the Big Injun sand and abandoned.

In Sheridan district, Calhoun County, Godfrey L. Cabot is rigging up on the Ardelia Garretson farm. In the same district, Smith & Starcher are rigging up on the Joseph Slider farm. W. H. Bickel has started to drill on the Robert E. Ferrell farm. In McElroy district, Tyler County, Baker & Co. have rig material at a location on the J. W. Blair farm. In Central district, Wetzel County, John Blair is due in the sand on the Thomas Sharpe farm. In Magnolia district, the Silver Hill Oil Co. is due in the sand on the Albert Barth farm. In Grant district, the Shimwell Oil & Gas Co. is still fishing for tools on the W. J. Price farm.

It has been many months since the West Virginia fields completed anything better than light pumpers. At the head waters of Goose Creek, Poca district, Kanawha County, the South Penn Oil Co. completed in the Berea grit a test on the J. M. Fields farm. It is a duster.

On Laurel Run, Murphy district, Ritchie County, E. E. Pope has drilled No. 8 on the M. S. Gambrill farm into the salt sand and it is a light gasser. On Three Mile Creek, Sheridan district, Calhoun County, the South Penn Oil Co. is drilling deeper its old No. 2 on the Caroline Haught farm.

(Continued on Page 111)

SHOWING IN SHIAWASEE COUNTY MOST INTERESTING IN MICHIGAN

By Whit
Staff Correspondent, Michigan Fields

SAGINAW, Mich., July 11. — During the past week a total of eight wells was completed, seven of which are in the real Saginaw Field, to the north of the city and within the corporation limits, with an initial combined production of 170 bbls., and the eighth completion is several miles south from the city near Burch Run, which was drilled to the deep Dundee sand and given up as a failure.

One of the most interesting of the wells drilling in Michigan at this time is in advance of the Saginaw Field to the southwest, in Shiawasee County. Hopes of oil men for the opening up of new Michigan production is turned to the Sun Oil Co.'s test near Owosso, in Shiawasee County, where a showing of oil was found Friday that oil men felt was well worth watching closely. No work has been done on the well since it went into the Saginaw sand at a depth of 2,200 feet, except to connect up tanks in preparation for a possible flow as on Saturday afternoon it was reported there was 1,500 feet of fluid in the hole, considered a very promising and interesting sign. Just what the new show means is not known, and little additional information will be available until work is resumed on the well later in the week. Opinion of oil men were tempered by the history of the Saginaw sand in the Saginaw Field, where it has proved to be spotty and uncertain, but it was pointed out that the characteristics of this formation at Owosso, 40 miles away, may be entirely different. While the Saginaw sand formation is rather disappointing in the Saginaw Field it may be much more favorable at Owosso, oil men say. A large quantity of acreage in the vicinity of the new well is held by the Sun Oil Co. and others, and it is reported there already has been some negotiations for leases by others than those who originally started leasing activities in the vicinity. The Owosso well is about 15 miles southeast of the Ashley operations of the Sun Oil Co., in Gratiot County, where one well developed a 1,750,000-foot gas volume at 490 feet, while another, 1½ miles away missed the gas sand and is now being drilled to the Berea sand.

Birch Run Deep Test

Disappointed by the showing of oil in the Dundee sand, the B. & B. Oil Co. is preparing to plug its test on the Pat Sauve lease, northwest of the town of Birch Run, in Birch Run Township, Saginaw County, several miles south of

(Continued on Page 111)

"bulk buying"—a special service for oil jobbers

BARNSDALL®

has a small fleet of 3 compartment tank cars—so jobbers may purchase their motor oils in bulk lots

[write for special prices]

BARNSDALL REFINERIES, Inc., TULSA, OKLA.—CHICAGO

SUPER-GAS

(Trade Mark Reg. U. S. Pat. Off.)

—the new and wonder motor fuel

—from the oil well to the jobber

~power in~
~knock out~

Now's the time to get ready for the big 1927 season. Write for details and prices on the exclusive Barnsdall SUPER-GAS profitable "sales permit."

SUPER-GAS is a new motor fuel—water white in color—pure—with plenty of power—and no knock.

Big selling features with an always wide profit margin.

3 modern refineries
Barnsdall, Okla.
Okmulgee, Okla. · Wichita, Kan.

Engaged in every branch of the petroleum business.

With our own crude—your source of supply is always uniform and dependable.

All BARNSDALL products are backed by over 70 million dollars of assets.

BARNSDALL Trade Marks

BIGHEART Cylinder Stocks

BE SQUARE Motor Oils

BIG

BARNSDALL Lubricating Oils

SUPER-GAS Wonder Motor Fuel

BARNSDALL

REFINERIES, Inc.

Executive Offices: Petroleum Building, Tulsa, Okla.

Subsidiary BARNSDALL Corporation

General Sales Offices: 624 S. Michigan Ave., Chicago, Ill.

New York — Pittsburgh — St. Louis — Kansas City — Wichita — Los Angeles — St. Paul

New Sand, Veale Township, Indiana

Daviess County Producer From Fourth Sand Makes 225 Barrels, Best Completion Yet Made in That Field

By Whit
Staff Correspondent, Central West Fields

FINDLAY, Ohio, July 11.—Another slow week for development work prevailed over the Central West Field, comprising Lima Field, Central Ohio. Indiana and Illinois, there being but 20 completions reported from the four divisions, of which 7 were producers with an initial production of 341 bbls., 6 dry holes and 7 gas wells. The most interesting well was that drilled in the L. I. Veale farm, Section 21, Veale Township, Daviess County, in southwestern Indiana, which had an initial 24-hour production of 225 bbls. from a depth of 1,322 feet. A 15-bbl. well was struck at a test on the Barrett lease, in Barton Township, Pike County, same part of Indiana, at a depth of 1,407 feet in what is known as the Brown sand. In the old Trenton Rock area of Indiana, in Wabash Township, Adams County, the I. M. O. Oil Co.'s test on the Neuenschwander farm, it reported at 20 bbls. initial. The best producer in the Lima Field was uncovered in the McComb Field, in Pleasants Township, Hancock County, on the Cains & Henry farm, with an initial of 45 bbls. The best that the Illinois Field could bring forth was a 25-bbl. initial producer on the J. W. Price farm, in Friendsville Township, Wabash County. Central Ohio failed to show any new oil completions since the last report, although 11 wells were brought in, of which 4 were dry holes and 7 were only average sized gas wells.

Lima Field

Little work is being done in the old Lima Field of northwestern Ohio. A trip through the famous one-time Wood County Field found but three wells drilling. Two are in Perrysburg Township, where George Huffman and others are drilling No. 1 on the Mary Ritzel farm, Section 23; No. 3 being drilled by George L. Hauber and others on the Catherine Smith farm, Section 29, same township, in the Colt Pool, while northwest William T. Sullivan is drilling a test on his own farm in Section 21, Middleton Township, near Haskins. Mattie S. Rouse and others have a rig up for No. 23 on the Eli Stockwell farm, Section 2, Libery Township, just out from Portage. In Sandusky County only one machine was running, being J. Parke Ludwig's No. 8 on the A. C. Ludwig farm, Section 7, Jackson Township.

Only three completions are reported from over the extensive Lima Field for the week, the best producer being the Bath Township Oil Co.'s No. 6 well, 660 feet from the south line and 225 feet from the east line of the Cains & Henry farm, in the McComb Field northwest of Findlay, in the northeast quarter of Section 14, Pleasants Township, Hancock County. This well topped the Trenton sand at 1,383 feet and drilled 40 feet in the sand, where it made an initial production of 45 bbls.

In Cynthian Township, Shelby County, the Eilerman Oil Co. has at last completed its second test, 1,400 feet from the south line and 250 feet from the east line of the N. A. Paulis farm, in the southeast quarter of Section 34, doing 6 bbls. initial at a total depth of 1,281 feet, or 49 feet in the sand which was topped at 1,232 feet.

A wildcat well drilled by the St. Marys Oil Co., in the northwest corner of the Clem Evers farm, in the northwest quarter of Section 20, Granville Township, Mercer County, found the top of the Trenton at 1,105 feet and went 45 feet in the sand to a total depth of 1,150 feet, getting salt water with only slight indications of oil and it has been abandoned as a dry hole.

Hardin County has two drilling wells, as H. E. Schmidt is drilling his No. 6 on the Earl Hites farm, in the Roundhead Field, McDonel Township, while in the Forest Field, in Jackson Township, W. F. Kurtz is making an effort to find an oil well in a test on the Laurence Deckelman farm. Mr. Kurtz has drilled in two nice gas wells and one dry hole in his first three tries to find a commercial oil producer, and if the Deckelman well does not show oil, will make further ventures in the old gas producing field.

The second test of George S. Lacknett and others on the J. Whitney farm, Section 10, Noble Township, Auglaize County, and Kelly Brothers' No. 1 on the Nancy L. Joseph farm, Section 11, Bath Township, Allen County, are both due for completion within a few days.

Indiana

Southwestern Indiana once more comes to the front with a well far above the average producer for any section of the state. This new well was drilled by the Hartman-Sargent interests, 600 feet from the south line and 200 feet from the west line of the Alonzo Veale farm, in the southeast quarter of Section 21, Veale Township, Daviess County, south of Washington a few miles. Sand was topped at 1,300 feet and drilled 22 feet in the sand to a total depth of 1,322 feet, and produced 225 bbls. the first 24 hours, and no doubt could have done better but that amount about filled the storage ready for the flow. This production—three times greater than any other well drilled in Daviess County — is expected to cause great interest to be taken in the field by outsiders. Speculation is rife as to what the production could have been had the facilities been available for holding the oil, but a conservative estimate given by Fred Hartman, one of the financial backers of the undertaking, and a prominent oil operator well known in the fields, places the possible production of 400 to 450 bbls. initial. Put on the pump at 3:30 o'clock Thursday afternoon after approximately 50 bbls. of the fluid had been lost by overflowing the casing, the Veale well was steadily pumped until shortly after 2 o'clock Friday afternoon when the three 100-bbl. tanks had been filled, thus causing the pumping activities to be halted. The well has been connected up to the pipe line going to Petersburg and the production taken care of.

"The best well that has ever been brought in and the finest grade of oil that Daviess County has produced," was the verdict of Fred Hartman of Hartman & Sargent in speaking of the new well. Mr. Hartman was firm in his belief that it was a wonderful strike and that a new interest would be manifested in the Daviess County Field as a result of the find. The oil well was brought in from the fourth sand, a new sand unknown to oil prospectors as no drill had touched it heretofore. The well was put on the pump in its natural shape, not requiring a shot.

New Locations

Confident that the rich strike means much to the oil interests of Daviess County, two new locations have been made near the Veale Well. Hartman & Sargent are setting up a rig about 400 yards from the Veale well on the Wildman farm, while C. H. Parriott has located a rig on the Ragsdale farm 400 yards west of the Veale well and 400 yards north of the Colbert well which was drilled in by Hartman & Sargent in March, for an initial production of 120 bbls., from a sand at 1,160 feet. The Veale well has almost enough gas in its natural state to flow the production and possibly would make a flowing well if given a shot, but the owners prefer not to take the chances, having as good a well as they care for, and much more prolific than expected until it hit the new sand in which the oil was found. The Veale well had a showing in the third sand and was given a shot there, but drilled it to the fourth sand where better results were obtained as the well's production shows.

In Barton Township, Gibson County, the Gem Oil Corp.'s test on the Sam Barrett farm, Section 8, is reported good for 15 bbls. in the Brown sand at a depth of 1,407 feet.

In the old Trenton Rock area, the I. M. O. Oil Co.'s well on the C. A. Nuenschwander farm, Wabash Township, Adams County, reported at 20 bbls. M. L. Anderson is drilling No. 1 on the Dr. C. Price farm, Section 24, same township.

In Jackson Township, Jay County, James J. Adams has pulled out and abandoned No. 13 on the R. Hamilton farm, Section 12.

T. M. Kingsbury, state gas supervisor, Department of Conservation, Division of Geology, Indianapolis, Ind., says in his report that a local company is drilling or starting a well on the William Lost farm, 3 miles south of Franklin, in Johnson County, and that Clark Whitman has been appointed receiver for the Best Oil Co., which is drilling No. 1 on the Pink Atkinson farm, Section 23, Logan Township, Pike County, which has been heretofore reported drilling by Alex Singer and others.

Illinois

Three completions are reported from the Illinois Field, all being in Wabash County. In Friendsville Township, just east of the town of Friendsville, Joe S. Young, Jr., and others' third well, 75 feet from the north line and 50 feet from the east line of the J. W. Price property, in the southwest quarter of Section 19, struck top of sand at 1,610 feet and at 8 feet in the sand produced an initial of 25 bbls. under pump.

In Wabash Township, Joe S. Young, Jr., and others' No. 5 in the southwest corner of the E. Alka heirs farm, in the northeast quarter of Section 1, and in the Allendale Field, is only a 3-bbl. pumper. Sand was found at 1,382 feet and drilled 15 feet in the sand. Miller and Karns struck a duster in a test 600 feet from the south and west lines of the H. A. Price heirs farm, in the southeast quarter of Section 14, same township, and just south of Allendale.

In Centralia Township, Marion County, Johnson and Bolles abandoned No. 1 on the A. Rittenhouse farm, Section 30.

The Ohio Oil Co. pulled out and abandoned No. 9 on the Anton Hampine No. 2 farm, Section 10, Wade Township, Clinton County.

Central Ohio

Eleven wells are reported from the Central Ohio Field, four of which are dry holes and seven gas wells. In Jefferson Township, Knox County, H. E. Perkins drilled a dry hole 350 feet from the north line and 700 feet from the west line of the C. I. Sheldon 40 acres, Section 11. Ohio Fuel Gas Co. is drilling No. 1 on the J. A. Spring 57 acres, Section 35.

Clear Creek Township, Ashland County, is showing quite a spurt in development work as well as Green Township, same county. In the latter township, the Logan Gas Co. brought in a nice gas well at a test 625 feet from the south line and 1,145 feet from the east line of the Daniel Dennis 70 acres, Section 27, while the Ohio Fuel Gas Co. got a dry hole at a test on the Electra J. Wallace 60 acres, Section 22, and is drilling No. 1 in the northeast corner of the E. J. Stitzlein 48 acres, Section 22.

In Clear Creek Township, Ashland County, the Logan Gas Co. landed a good gas well at a test in the southwest

(Continued on Page 76)

KENTUCKY-TENNESSEE AREA HAD MORE OIL FROM FEWER NEW WELLS

By Whit
Staff Correspondent, Kentucky-Tennessee

HARTFORD, Ky., July 9.—Work in the Kentucky-Tennessee fields is rather quiet, outside of a few spots where wells above the average are being developed at comparatively shallow depths. In the Tennessee end, the Celina Field, of Clay County, as well as Jackson County are having a fairly good amount of work, while in Kentucky the busy spots are in Ohio and Barren Counties, the big wells being in the Ohio County end. This county made a good record during the week with five completions, four of which produced 200 bbls. each initial and one showed 180 bbls. These wells are all in the Ambrose Pool.

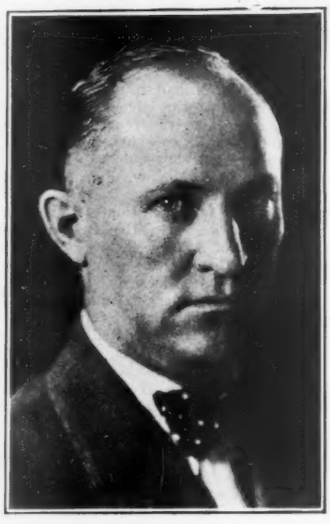
There is bound to be some excitement southeast of the Ambrose Pool approximately 4 miles, where some very interesting work is being done along the south side of Rough River. During the past few weeks most every available acre of land has been taken under lease, the present producing wells being close to the hamlet of Sunnydale and known as the Sunnydale Pool. A well in the sand on the Barnett farm in what is called the Roby Pool, opened some time ago by the Leeper Oil Co., east of Knottsville and in Daviess County, a few miles southwest of Pellville, is reported to be making a very good showing, being southeast of production on the Roby farm. Should this well prove to come up to expectations that area of Daviess County should get a heavy play during the next few months.

Pool Growing

It took a long time to open up Ohio and Daviess Counties as good producing areas, but things have changed and it looks to the average operator as the best stuff now being developed anywhere within the borders of the State. The wells in the Ambrose Pool almost all show initial production of a hundred barrels or better, there being only a very few that have been brought in that fell below a century producer, and the pool is growing in size from week to week. A well showing for an excellent producer at least over a mile west of the present limits of the pool by C. E. Daugherty and others on the Owen-Bartlett property, close to Union Grove Church, makes the intervening territory look to be gilt edged, while to the south end of the pool some good wells have been completed on the J. I. Bartlett, Sally Early and other farms that make the south territory look encouraging. This can hardly be said for the north territory, as the well recently drilled in the Wiley Colyer lease not far removed from production being reported dry last week. The Sunnydale Pool, to the southeast some 4 miles, will encourage drilling in that particular direction. The Sunnydale Pool, being the farthest

(Continued on Page 105)

MEN KNOWN IN OILDOM



C. C. Laidley

C. C. Laidley, general superintendent of production for the Superior Oil Corporation, has had the advantage of the soundest and prolonged training in drilling and producing oil wells.

Born in an oil field at Meadville, W. Va., in 1880, he spent the early years of his life around drilling and pumping wells. He began work as a pumper for the Carter Oil Company at the age of 14 years, and worked for five years in that capacity until he joined the forces of the South Penn Oil Company in the production department.

After two years with the South Penn Company, he purchased an interest in a string of tools, and entered the drilling contracting business. Dissatisfied, he again entered the Carter employ after three years, and then spent another three years under the Carter emblem before he crossed the river and left West Virginia for the Ohio fields. He became connected with the Pure Oil Company at New Matamoras, Ohio, and spent four years in the Buckeye State fields before the lure of the newly-discovered Mid-Continent territory called him.

In March, 1911, he landed in Oklahoma and started in the Cleveland territory as a driller. After four years on the derrick floor in Oklahoma, he once more found himself on the Carter pay roll, and this time remained eight years as production foreman in the Oklahoma and Kansas fields.

On January 1, 1923, he became superintendent of the Superior Oil Corporation and later was made general superintendent.

PERSONAL PARAGRAPHS

Michael J. Spellacy, well-known oil man, has returned from Colombia.

* * *

Mr. and Mrs. A. Collie have returned to Petrolia, Ontario, from the Trinidad fields.

* * *

George Booth, general manager for British Controlled Oilfields, Ltd., has left Venezuela for England.

* * *

Louis Nies and W. J. May, Chicago business men, are in Casper, Wyo., looking after investments in oil lands.

* * *

M. F. Moroney, independent producer of Okmulgee, Okla., is vacationing in the lakes of Michigan where the trout bite.

* * *

W. J. Rawson, who returned to Petrolia, Ontario, some time ago from South America, has left for the Persian oil fields.

E. B. Reeser, president of the Barnsdall Oil Company, is in New York conferring with various officers of his corporation.

* * *

Don W. Moore, independent operator, formerly of Tulsa, Okla., has opened office in the Mays Building at San Angelo, Tex.

* * *

H. P. Taubman, president of the Taubman Supply Corporation, of Tulsa, Okla., has returned from a several weeks' trip to the East.

* * *

Mrs. G. W. Merrill and children, Murray and Jane, will leave Negritos, Peru, shortly for Petrolia, Ontario. Mr. Merrill will follow later.

* * *

J. E. Flanagan, head of The Texas Company land department in Oklahoma and Kansas, is spending his vacation at Buffalo and western New York points.

* * *

Clarence A. Leeper, president of the Leeper Oil Company, operating in the Hancock-Ohio-Daviess Counties oil field in western Kentucky, is visiting in Chicago.

* * *

W. C. Longan, resident manager at Tampico, Mexico, for the Mexican Seaboard Oil Company, was in San Antonio, Tex., recently, returning from a trip to California.

* * *

E. C. Dyer, scouting for the Eastern Gulf Oil Company, spent several weeks looking over the Ohio County Field in Kentucky, and departed for the Illinois fields.

* * *

William B. Rogers, Cleveland, Ohio, retired from the right of way department of the Southwest Pennsylvania Pipe Line Company, was a recent visitor in Pittsburgh, Pa.

* * *

H. F. Wilcox, head of the Wilcox Oil & Gas Company, of Tulsa, Okla., spent a few days at Toledo, Ohio. Sam Aaronson, oil operator of Tulsa, was also a Toledo visitor.

* * *

Arthur W. Ankeny, of Indiana, Pa., recently drove by automobile into the Whitesville Field of western Kentucky, where he is taking up some acreage for development purposes.

* * *

Lee S. Devol, Pittsburgh, Pa., general superintendent of the Pure Oil Company's pipe line system in the East, after spending some time in the Mid-Continent fields, has returned to Pittsburgh.

* * *

C. L. Coppage, vice president of the California Petroleum Corporation and director of sales, recently completed a tour of South America on company business, being gone approximately two months.

* * *

Tony Statts has arrived in New York from South America with his wife and will leave soon to visit relatives in Tulsa, Okla. Mr. Statts is South American representative of the Parkersburg Rig & Reel Company.

* * *

A. W. Thompson, sales manager of the Westcott Valve Company, is making a trip through the Louisiana-Arkansas territory, and will visit the Gulf Coast fields before returning to his headquarters in Tulsa, Okla.

* * *

H. A. Henry, who recently purchased the properties of the Kentucky Oil Company, in the Pellville Field in Hancock-Ohio-Daviess Counties, Kentucky, has returned to his home in Wisconsin for a short visit.

* * *

E. A. McKanna, of New York City, consulting geologist for the Mexican Seaboard Oil Company, has been in San Antonio, Tex., recently at the office of the Milham Corporation, subsidiary of the Mexican Seaboard Oil Company.

* * *

Lord William Ivey, chairman of the board of the Kern River Oil Field of California, Ltd., is in Los Angeles, making a survey of this company's holdings in California. Lord Ivey will remain only long enough to get the St. Helens Petroleum Company, Ltd., started off in the refining game, upon conclusion of which he will return to London.

Thomas A. O'Donnell, chairman of the board, California Petroleum Corporation, and Mrs. O'Donnell, are touring Europe, Mr. O'Donnell visiting Stockholm as representative of the American Petroleum Institute, at the oil conference there.

* * *

F. H. Mooney, of the Sun Oil Company, W. H. Barney, of the Caribbean Petroleum Company, and Paul G. Cramton, J. E. Caudle, G. L. Ford, Herbert Perkins, and Sidney Wills, of the Venezuelan Gulf Oil Company, have returned to Venezuela.

* * *

Bryce Gillespie, manager of the accounting department for the General Petroleum Corporation at Los Angeles, Calif., has left for Europe to be gone a little over two months. Mr. Gillespie will visit Scotland, France, Switzerland and England.

* * *

Alex Chitwood, formerly with the Magnolia Petroleum Company at Shawnee, Okla., has been transferred to San Antonio, Tex., and placed in charge of the land department at the San Antonio offices, left vacant by the death of Mr. Tilden a few weeks ago.

* * *

Mr. and Mrs. J. L. Minahan, of San Antonio, Tex., have a baby girl born recently. Mr. Minahan, now an independent operator in Southwest Texas and one of the discoverers of the Randado Pool in Jim Hogg County, was formerly with the Roxana Petroleum Corporation.

* * *

George Francis, scout for the Petroleum Exploration Company, who has been a resident of Owensboro, Ky., for 18 months, has left for eastern Kentucky where he will look after the interests of his company in the gas fields of Lee-Owsley and Knox Counties.

* * *

Following a sudden attack of gal'stones, while on a trip to Europe, A. R. Marshall, of the Petroleum Exploration Company, was operated upon in one of the Paris hospitals and lay seriously ill for several weeks. Mr. and Mrs. Marshall were expecting to reach their home in Lexington early in July.

* * *

J. J. Brooks has returned to Petrolia, Ontario, on furlough from Borneo. Mr. Brooks reports the Petrolia men in the Borneo fields as well and happy. He spent 10 years in Miri, Sarawak, and prior to that drilled in Venezuela and the West Indies. He will remain in Petrolia till September.

* * *

President E. A. Durham, of the Trico organization, with Mrs. Durham, have left Sistersville, W. Va., for the British Isles. While in England, Mr. and Mrs. Durham will attend the wedding of their nephew, Arthur Durham, and Miss Edith Sugden of Cleckheaton. They expect to visit Scotland and Wales, and will be gone about seven weeks.

* * *

H. R. Straight, general manager of the Empire Gas & Fuel Company, of Bartlesville, Okla., is back home after a 10 days' trip to New York. He stopped at Battle Creek, Mich., on the return trip to visit with Henry L. Doherty, president of the Cities Service Company of New York, who is recuperating there.

* * *

Two distinguished oil scientists from other lands were visitors to the central oil fields of Wyoming recently. Prof. Tsunenaka Iki, of Tokyo Imperial University, where he has the chair of petroleum engineering, and Prof. Kunio Uwatoko, assistant professor of geology of the Hokkaido Imperial University at Sapporo, Japan, are touring the United States oil regions and gathering ideas for the operation of the oil fields of Japan.

* * *

A party of officials of the Standard Oil Company of Indiana left Chicago last week by airplane for an inspection trip over various oil properties of the company in the Louisiana-Arkansas territory. The party included Col. Robert W. Stewart, chairman of the board, Allan Jackson, vice president, L. L. Stephens, general counsel, R. E. Humphreys, director of manufacturing, C. H. Hatmaker, assistant general manager, Frank V. Martinek, manager of personnel, and R. J. Barnett, tax commissioner. The trip is being made in the Indiana company's plane Stanolind.

"OILWELL" HERCULES STEEL SUCKER RODS

"OILWELL"

Originated the Upset Steel Sucker Rod
Made from One Piece of Steel and Weldless

Features of
"OILWELL" Hercules Steel Sucker Rods

Free wrenching which saves labor and time, and also eliminates the freezing of threads. The end of the pin on all Hercules Rods is crowned to protect the first thread from damage and to facilitate easy starting of the joint.

Friction joints—Hercules Joints "shoulder up" readily and are easily locked with wrenches, thereby eliminating unscrewing in the well. The boxes are counterbored which keeps sand from accumulating on the joint shoulder when "setting up."

Fillet at pin base gives additional strength to pin.

"OILWELL" Hercules Steel Sucker Rods can be furnished in two styles — box and pin, or pin and pin with couplings. They are practical in design, sturdy in construction and efficient in service. Popular sizes are carried in stock at all district points.

Inquire at any of our 100 Branches

OIL WELL SUPPLY CO.

NEW YORK—LOS ANGELES—PITTSBURGH, U.S.A.—SAN FRANCISCO—TAMPICO—LONDON
WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

Stirring days of ear

are called to mind when men mentio

Major F. J. Quinby

Pioneer Driller-

Major F. J. Quinby, president of the Quinby Oil Company, Ft. Stockton, Texas, has won name and place in the oil industry, second to no other one man in the contracting field. His selection of Clark Drilling Engines again emphasizes the pronounced preference for the "world's most illustrious drilling engine."

We The CLARK

Clark Bro's. Co. OLEAN N.Y.

Dri

...rly drilling history

...tion this famous contractor's name

The CLARK ENGINE owes its prestige to its association with men who have made DRILLING HISTORY

Eight years ago the Clark Drilling Engine entered unostentatiously upon the performance of its duties in the Oil Industry. The fact that its introduction created little excitement was due to belief that it was "just another drilling engine." But experienced drillers soon learned that the CLARK was an EXCLUSIVE DRILLING ENGINE, not a *pumping engine* that might answer the need for drilling on occasion.

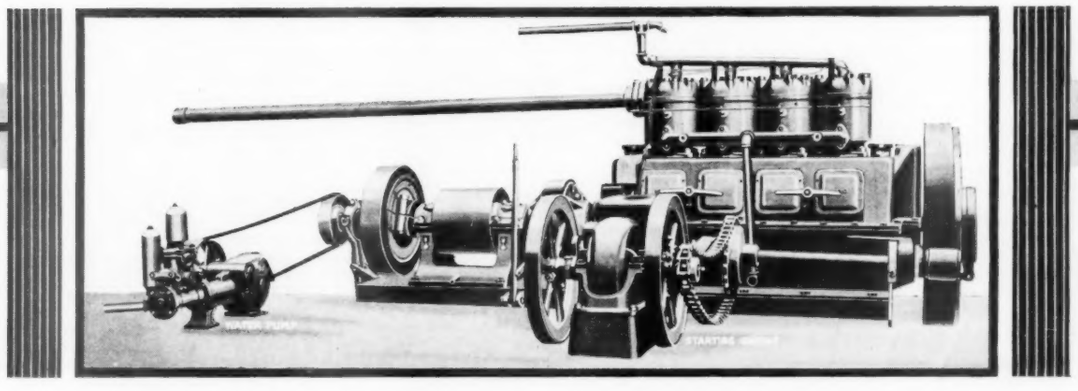
For eight years the conviction has been growing among producers and contractors, that the CLARK ENGINE represents the utmost in drilling engine efficiency—that it is *all* drilling engine and nothing else—made as strong and rugged and precise as the finest automobile engine.

Follow the judgment of prominent contractors, drillers and producing companies who use the Clark Engine exclusively—and drill more hole for less cost. You can be sure that you are getting the best drilling engine on the market, manufactured by the drilling engine authorities, and backed by all the prestige and reputation embodied in the nameplate, "Clark Bros., Olean."

CLARK BROS. COMPANY
OLEAN, N. Y.

or
125 W. First Street,
TULSA
warehouses at McCamey and Sweetwater, Texas,
and Artesia, New Mexico

or
SMITH BOOTH USHER COMPANY
125 S. Central Ave., Los Angeles
50 Fremont St., San Francisco



...rilling Engine

EQUIPMENT AND SUPPLIES

RECORDING INSTRUMENT AVOIDS TIRESOME LABOR

Quite some time ago a hydraulic load indicator or dynamometer was developed by the engineering department of Axelson Machine Co. for use in a series of check tests at different wells in various localities. This instrument had proved exceedingly valuable in obtaining definite operating information, but required keen observation on the dial of an indicating gauge. The reactionary motion taking place during the functioning of the instrument could be observed by the operator, but no permanent way of recording such observers was available.

Recognizing the necessity of making permanent records, engineers of the Axelson Machine Co. devised a recording instrument to operate in conjunction with the hydraulic load indicator, making unnecessary the constant observation by trained eyes. The new recording device makes unnecessary the tiresome observation over a long period of time. The recording mechanism is of special construction throughout and reproduced curves are obtained as a result of the application of a movable chart operating at variable speeds up to 6 inches per minute.

ISSUES INSTRUCTIONS ON CARE OF GASKETS

The Climax Engineering Co., Clinton, Iowa, has issued instructions covering the installation and care of cylinder head gaskets of interest to users of gasoline engines. Cylinder head gaskets in a heavy-duty type of engine such as Climax Trustworthy engines require more attention than is necessary in the care of the automobile engine. When installing a new gasket, the operator should proceed as follows: 1—Clean all surfaces. 2—Place gasket on head with the dark side down and shift on studs until all water openings index properly. 3—Put on head and draw the stud nuts down beginning with the nuts in center portion of head until all are just bearing on head. 4—Tighten the nuts gradually, working back and forth across, not around, the head always keeping more tension on the nuts in center portion of head. Continue until all nuts are drawn tight. 5—Run engine without load until thoroughly warmed up. Stop and go over all nuts again beginning with the nuts in center portion of head. 6—Tighten nuts frequently and persistently for three or four days until the gasket is finally compressed and nuts can be turned no further. Note—This latter procedure should be followed in the case of a new engine going into service.

When heads are removed for grinding valves it is good to install new gaskets although frequently the old gaskets can be successfully used again if not damaged and carefully installed.

Operators who follow these simple rules will avoid engine trouble which might cause delay and a consequent loss in profits and production time to the engine power.

MIDWESTERN STATION

The Brown Instrument Co., Philadelphia, Pa., announces the opening of a Midwestern repair and service station at 217 East Illinois Street, Chicago, Ill. The station is under the supervision of factory trained instrument mechanics, and the company is now in position to furnish at the station, charts, thermocouples, protecting tubes and instrument parts from stock.

DISTRICT SALES MANAGER

Central Tube Co., Pittsburgh, Pa., announces the appointment of A. S. Lindeblad as district sales manager in charge of its Chicago office. David M. Cooper, Jr., will be Mr. Lindeblad's assistant.

OPENS WICHITA OFFICES

Continued expansion of business and the desire to cover more completely the Mid-Continent territory has resulted in the opening of offices in Wichita, Kans., by Wilson Oil Tools Corp. The manufacturers have selected offices in the Bitting Building, at which address field representatives in Kansas will make headquarters, reporting directly to the Los Angeles main office.

TULSA FIRM HANDLES HEATING EQUIPMENT

The Thermo Engineering Corp., 317 New Alexander Building, Tulsa, is now the representative in the Mid-Continent area and Gulf Coast fields for the O. E. Frank Heater & Engineering Co. of Buffalo, engineers and designers of heat transmission equipment. This equipment is manufactured for the Buffalo concern by Farrar & Trefts, Inc., of Buffalo, which company has its own iron foundry and boiler and plate shops covering an area of more than 10 acres, insuring prompt delivery.

The O. E. Frank Heater & Engineering Co. offers to the petroleum industry exchangers, vapor condensers of both the partial and total types, reboilers, gas coolers and heaters, naphtha heaters, reflux condensers, knockout boxes and air coolers and heaters. This equipment is claimed to have given entire satisfaction and is offered under a guaranty of one year.

S. E. Savage is president and treasurer of the Thermo Engineering Corp., with J. D. McLin as vice president and C. K. Bennett as secretary and consulting engineer. Mr. Bennett, formerly with the Schutte & Koerting Co., has had 14 years of experience with this class of equipment and his services are available to companies interested in solving problems relating to equipment and methods.

The Thermo Engineering Corp. intends adding lines of equipment from time to time, the new lines being in the same class as the heat transmission line, that is, of a high class.

NEW HEAVY CURRENT ELECTRODE HOLDERS

With the coming of heavy current welding, new accessories have been necessary in the arc welding lines of equipment. A 600-ampere metal electrode holder has just been brought out by the Lincoln Electric Co. of Cleveland, Ohio. This holder handles metal electrode in sizes up to one-half inch diameter and is known as type TR.

Many improvements are claimed for the holder, among them being replaceable copper jaws, four-line contact for the electrode, all copper path for welding current, structural steel construction (maximum strength), light weight with good balance, cool insulated and ventilated handle and shield for protection of the operator's hand.

NAMED EXPORT DISTRIBUTORS

T. E. Ward, head of the Oil Field Equipment Co., states that the company has been made sole export distributors of J. B. W. Gardiner, Inc. Mr. Ward sails for England July 30 on the Minnewaska for a short trip. He recently returned to New York from the Pacific Coast. Conditions there are much improved, he states.

OPENS NEW YORK OFFICES

To co-operate more closely with export purchasers of oil field equipment, the Brooks Engineering Corp. of Los Angeles has opened offices at 30 Church Street, New York City.

NEW PUMPING UNIT OF LINK-BELT COMPANY

The Link Belt Co. of Chicago, Ill., has developed a new oil well pumping unit as illustrated. It has been christened the Ruf-Neck, and was designed and built with a view towards furnishing the utmost in reliability, durability and efficiency of pumping apparatus. According to the makers, it was constructed to insure continuous operation and endurance, and has been protected against excessive wear by enclosing all gears and providing proper lubrication for all moving parts.

Among the many advantages claimed by the Link-Belt Co. for the new unit are that it enables the operator to balance his pump load for any and all conditions; that it enables him to change quickly his counterweight effect to suit a changed pumping condition; it enables him to have sufficient counterweight and flywheel effect for pumping operations, both of which are easily and quickly eliminated when the unit is used for servicing; and that it provides a crank that will distribute the wear uniformly around the main gear.

The Link-Belt Co. further claims that the unit gives the operator a brake control within the unit itself, that will enable him to hold heavy loads in any desired position. The unit contains a multiple crank disc provided with three lines of crank pin holes located at 120 degrees apart, and by working the crank pin in line of holes indicated for each month, the wear is distributed uniformly around the main gear. The foot brake operating mechanism is located on the derrick floor adjacent to the operating end of the draw works.

HEAVY DUTY MOLDING MACHINE

The Oil Well Supply Co. announces that an unusually large molding machine of the heavy duty jarring bumper type has been installed at its Imperial Works. This machine has a table 8 feet by 10 feet and is operated by a 27-inch diameter air cylinder. Its capacity is 28,000 pounds, and it is equipped with an independent turnover and pattern drawing device. This new installation was made necessary by the fact that much of the company's product is of increased size and weight, and to meet the service demands of the trade promptly and efficiently the most up-to-date machinery was essential.

NEW OFFICE IN TULSA

The Permutit Co. of New York City, manufacturers of water softeners and filters, has opened Mid-Continent offices at 508 Atlast Life Building, Tulsa, with B. T. Delafield, resident engineer, in charge of sales.

INCREASES CAPITAL

The Graver Corp. has filed notice of an increase of its capital stock from $50,000 to $1,500,000 and 50,000 shares of no par value.

OKLAHOMA REPRESENTATIVE

The Quimby Pump Co. of Newark, N. J., announces that W. A. Sawdon, 220 Central National Bank Building, Tulsa, has been appointed representative for that concern in the State of Oklahoma. Mr. Sawdon is a petroleum engineer and has been identified with the petroleum industry for many years.

ENCLOSED SELF OILING TRIPLEX POWER PUMP

A new type of self-oiling, triplex power pump with, it is stated, several special advantages has just been placed upon the market by the Worthington Pump & Machinery Corp. The mechanism, by reason of its cast-iron case and cover, is described as practically impervious to dust, grit and other destructive particles of matter, a fact which makes it an admirable pump for work in oil fields, road-building, contracting and all other services where these conditions exist. Dust and grit can materially shorten the life of a pump incompletely enclosed.

The pump is said to require remarkably little maintenance attention. All moving parts are thoroughly lubricated from oil in the crank case so that the only work that devolves upon the pump operator is an occasional draining and refilling of the crank case.

This new Worthington product is of the horizontal triplex, single-acting, outside packed plunger type and is being made in two sizes: 2¾ inches by 5 inches and 3¼ inches by 5 inches. The pump will run at 200 r.p.m. crankshaft speed which gives the small pump a displacement of 77.5 gallons per minute against a pressure of 500 pounds per square inch. The larger will displace 108 gallons per minute against a pressure of 360 pounds per square inch. Reduction of speed will cause a corresponding reduction in capacity and and horsepower requirements. The gear ratio is 6 to 1, hence the pinion shaft may be direct-connected to a 1,200 r.p.m. motor or engine without any additional gearing or belts.

The enclosed crankcase provides a very large oil reservoir for the flood lubricating system. The rim of the main gear runs submerged in the lubricant and carries oil to the top of the crankcase whence it is distributed generously to all bearings. All moving parts run in a bath of oil to assure smooth, quiet operation and long life, with minimum attention. All oil overflowing from the bearings is automatically returned to the crankcase and used over and over.

TRADE LITERATURE RECEIVED

From C. J. Tagliabue Mfg. Co., Brooklyn, N. Y., bulletin No. 918 B covering applications of Tag instruments to natural gasoline plants and petroleum refineries. This is really a noncommercial handbook which discusses the more important processes of refining and natural gasoline making.

From the Bristol Company, Waterbury, Conn., pyrometer instruction bulletin No. 358 which should be very helpful to users of pyrometers.

From Hills-McCanna Co., Chicago, Ill., a folder entitled "Lubrication and its problems." It is intended to bring attention to various types of force feed lubrication.

"Bulk Storage Tanks" is the title of a new catalog just issued by Graver Corp., East Chicago, Ind. It contains many illustrations of bulk stations of every size, and has a list of standard tank sizes with specifications for every size. Several pages are devoted to drawings of bulk station layouts.

The reputation of the Moore Tubular Steel Derrick is built on its strength, its long life, its ease of erection and convenience in handling. For twenty years it has gained the steadily increasing confidence of oil men because its design, together with the proper selection of materials for its fabrication, result in a structure which can be depended upon under all circumstances.

World Wide Service
for Twenty Years

LEE C. MOORE & CO., *Inc.* PITTSBURGH · TULSA

Established 1907

DALLAS, TEXAS HOUSTON, TEXAS WICHITA FALLS, TEXAS BORGER, TEXAS PARKERSBURG, W. VA.
CASPER, WYO. SHREVEPORT, LA. EL DORADO, KAN. EL DORADO, ARK.

Natural Gas Developments

PROGRESS REPORTED ON SOUTH PLAINS GAS LINE

AMARILLO, Tex., July 9.—Progress is reported on the new Amarillo-South Plains gas line of the West Texas Gas Co., a subsidiary of the Prairie Oil & Gas Co. It proposes to pipe natural gas from wells in Potter, Moore, Hutchinson and adjacent counties, through a 16-inch pipe line, to a point at Amarillo; thence to Canyon and Plainview, in a 15-inch line; 10¼-inch line from Plainview to Lubbock and Floydada; 8⅝-inch from Lubbock to Slaton, and 6⅝-inch to Lockney.

In a few days the ditching machines will be busy on the lines to East and North Amarillo, and the 15-inch line will skirt the city and parallel the Santa Fe tracks towards Canyon. A large camp is now being thrown up near the Palisades by Conner & Son Construction Co.

R. F. Hinchey, vice president and general manager of the West Texas Gas Co., said that of the 190 cars of pipe shipped by the mills 90 had been received and 100 cars were in transit. Mr. Hinchey added that the telephone-telegraph line is completed and in operation to Canyon. All of the 13-inch pipe needed for the Amarillo-Canyon section of the line has been received and distributed. The ditches for the 16 and 10-inch lines around Amarillo are now being dug with large Buckeye ditchers. Many changes are being made in the original right of way, and the line may be shortened in places. The 15-inch pipe for the main line from Plainview north to Canyon has been received and is being laid at the rate of 1 mile a day. Welders are following the crews that lay, wrap and paint the pipe.

Twenty sets of welders were working at Abernathy on the 10¼-inch line from Plainview to Lubbock. They have been welding around 4,000 feet of pipe a day. The 6⅝-inch pipe from Floydada to Lockney has been strung and five sets of welders are working on that section.

The 8⅝-inch line east from Plainview to Aikin and towards Floydada has been making progress. More than 3 miles have been completed and nine sets of welders are at work there. At Canyon ditchers are busy on the 6⅝ and 4-inch lines around and in the city for the local distribution system.

Estimates of the engineers indicate that the West Texas Gas Co. will utilize to complete its South Plain line the following pipe: 147,840 feet of 16-inch, 393,000 feet of 15-inch, 257,200 feet of 10-inch, 146,000 feet of 6⅝-inch and 8⅝-inch.

LOUISIANA COMPANY PLANNING EXTENSIONS

SHREVEPORT, La., July 9.—Belchic & Laskey (the Northwest Louisiana Gas Co.) have bought the Ruston Gas Co. from J. M. Thatcher, Jr., and associates of Ruston, La. With the purchase goes ownership of a 6-inch pipe line from the Monroe gas field built a year or two ago. Northwest Louisiana Gas Co. is now engaged in building a similar line from Homer to Arcadia, which is to be extended from Arcadia to Ruston, where it will feed into the local distributing system supplied from Monroe. The Northwest Louisiana Gas Co. has 25-year franchises in 11 communities. Supplying Sarepta, Spring Hill, Cotton Valley, Haynesville and Homer, the company is building an extension from Homer to Arcadia which will supply Gibsland and Athens. The 6-inch line from Monroe, acquired with the Ruston Gas Co., was already supplying Downsville, and a tap is being built from Downsville to Choudrant. Franchises from other communities are reported in prospect. The purchase of the Ruston company causes the Monroe and Webster gas fields to be tied together for the first time.

GAS FOR CARTHAGE

CARTHAGE, Tex., July 9.—Since the Dixie Pipe Line Co.'s 22-inch gas line from the Waskom and North Louisiana Fields to Houston and Orange will come within about 3 miles of Carthage a franchise will probably be granted to this company by the city. The Chamber of Commerce has been requested to furnish a survey of the number of people that want gas. This line will be the third gas line to be built in Paola County, as the Magnolia company has two gas lines already supplying Texas cities from Latex.

COLORADO INTERSTATE GAS COMPANY PLANS

The gas line of the Colorado Interstate Gas Co., jointly owned by Standard Oil Co. of New Jersey, Producers & Refiners Corp. and Mission Oil Co., which is planned to extend 350 miles from Amarillo gas field, Texas, to Denver, will obtain its entire supplies from holding of Amarillo Oil Co., a subsidiary of Producers & Refiners Corp., and Mission Oil Co. Amarillo Oil Co. owns leases covering about 350,000 acres of proven gas lands in the Amarillo Field, Texas Panhandle.

The new line is primarily intended to serve Denver, Colorado Springs and Pueblo. At Denver the gas will be delivered at the city line to Public Service Co. of Colorado, a subsidiary of Cities Service Co., which plans to distribute it through its mains.

Among important customers of the new line will be Colorado Fuel & Iron Co., which is understood to have contracted for a supply of 4,000,000,000 feet a year, or about 14,000,000 feet daily, to be delivered to its Pueblo plant.

A tentative contract has been entered into between Colorado Interstate Gas Co. and Public Service Co. of Colorado, providing for delivery of gas if satisfactory rate ordinances can be obtained from the city of Denver. Active negotiations with Denver officials toward this end are being carried on by Public Service Co. of Colorado.

DIXIE PIPE LINE CO. SURVEY UNDER WAY

SHREVEPORT, La., July 9.—The Dixie Gas & Utilities Co., recently organized by the Moody-Seagraves interests of Houston and Galveston, Tex., has been granted a franchise to supply both domestic and industrial gas at Lufkin, Tex., it has been announced by representatives of the company here.

The new company already is distributing gas at Marshall, Tex., through purchase of the Marshall Natural Gas Co. from The Texas Co., and also at Cedar Grove, La., through acquisition of The Texas Company's distribution there. The company also has a franchise at Orange, Tex.

Survey of the right of way for the trunk gas line of the Dixie Pipe Line Co. to be laid from the Waskom Field of East Texas and Caddo Parish, Louisiana, to Port Arthur and Houston, Tex., is under way, and the Hope Engineering & Supply Co., which will build the line, is opening offices at Shreveport preparatory to starting of construction. The line will supply gas for distribution by the Dixie Gas & Utilities Co.

CARBON PLANT DROPPED

BRECKENRIDGE, Tex., July 9.—Application for a permit to build a carbon black plant in the South Bend Field has been withdrawn by Roxana Petroleum Corp. Reports that the Lone Star Gas Co. plans a line to utilize the gas is given as reason.

SOUTHERN CALIFORNIA GAS COMPANY MERGER

SAN FRANCISCO, July 9.—Southern California Gas Co. has made application to California Railroad Commission to acquire Midway Gas Co., Valley Natural Gas Co., Central Counties Gas Co., Riverbend Gas & Water Co. and Hanford Gas & Power Co.

On completion of the consolidation the Southern California Gas Co. system will operate in a territory from Los Angeles basin north to Dinuba, Hanford and Visalia, in Joaquin Valley, and Ventura east to San Bernardino.

In connection with acquisition, the application asks commission's authorization to issue $35,000,000 in 30-year 5 per cent bonds, part of proceeds of which are to be applied to redemption of following issues:

Southern California Gas Co. $4,354,000 first mortgage 6s of 1950, callable at 105; $2,747,000 first and refunding 7s of 1951, callable at 107½; $6,200,000 first and refunding 5½s of 1952, callable at 105; $4,000,000 first and refunding 6s of 1958, callable at 105;

Midway Gas Co. $883,000 first and refunding 6s of 1929, callable at 100;

Central Counties Gas Co. $484,000 first mortgage 6s of 1939, callable at 103; $78,000 convertible debenture 7s, callable at 102;

River Bend Gas & Water Co. $190,000 first mortgage 7s of 1942, callable at 104, and

Hanford Gas & Power Co. $70,000 first mortgage 6s of 1937, callable at 101.

Southern California Gas Co. in 20 years' operation has grown to be one of the largest distributors of gas. In Los Angeles, San Bernardino and Riverside Counties it serves domestic and industrial customers in over 70 cities and communities, and sells natural gas to other utilities.

Midway Gas Co. was organized 15 years ago to bring natural gas from Midway fields, near Taft, to Los Angeles. The company has since expanded activities and at present brings gas from every important field in southern California, which it sells to Southern California Gas Co. and other companies, retailing gas in southern California.

GAS COMPANY UPHELD

CHATHAM, Ontario, July 9.—The judicial committee of the privy council at London, England, has refused the city of Windsor, Ontario, leave to appeal from an adverse decision of the Supreme Court of Canada in its gas rate case. The decision terminates litigation which has been in progress between the city and the Windsor Gas Co. for five years, the city opposing an increase in the original franchise rates.

LOCKHART GAS LINE

LOCKHART, Tex., July 9.—The work of laying the mains and the street lines of the Southwest Texas Gas Co. at Gonzales, will soon be completed, according to a report received from there, and the head crew will move into Luling and from there to Lockhart. The crew laying the main line from the Jackson County gas field will be in Yoakum in a few days, and the pipe line on north will be pushed. It is possible that Lockhart will be burning gas by early winter.

NEW GAS FRANCHISES

SAN ANTONIO, Tex., July 9.—The Southern Gas Co. of San Antonio has been given a franchise to furnish natural gas at Seguin and New Braunfels, 30 miles northeast of San Anotnio, and is surveying a line and will extend its gas line from San Antonio to those cities. There are industrial plants at both places.

GAS FOR MONTANA CITY

Miles City, Mont., has voted a franchise for natural gas to the Montana-Dakota Power Co. and decided to sell the municipal artificial gas plant. Hope Engineering & Supply Co. of Mount Vernon, Ohio, has the contract to lay the line to Miles City from the Cabin Creek gas field in eastern Montana. Several towns between the gas field and Miles City will also be supplied with natural gas. The Montana-Dakota Power Co. is a subsidiary of the Minnesota-Northern Power Co. The trunkline will be 70 miles in length and will consist of 8-inch plain end pipe with Dresser couplings.

DEXTER HELIUM PLANT TO PRODUCE JULY 15

ARKANSAS CITY, Kans., July 9.—Helium gas, to be used by the United States government air service, will be produced in Cowley County, beginning July 15. The new helium plant now being constructed at Dexter, 20 miles northeast, is nearly completed and will be ready for operations by the middle of this month. The plant is being erected by the Kentucky Hydrogen & Oxygen Co., which has contracted to sell most of its output to the Government.

Dexter is said to be at the center of the richest helium gas field in the world. Prof. H. P. Cady, head of the chemistry department at the University of Kansas, first discovered the gas as a component of natural gas while experimenting on samples from the Dexter wells.

Two units of the helium plant have been erected, and the Kentucky concern expects to build other units in the near future. The total investment is expected to exceed $1,000,000.

The natural gas near Dexter is said to contain as high as 2 per cent helium, whereas the richest of the Fort Worth, Tex., wells contain only about 1 per cent. The new plants at Dexter will be managed by R. R. Bottoms, who also is in charge of construction.

J. W. Smith, oil operator of Arkansas City, who blocked out much of the acreage in the Dexter area, resulting in the finding of the gas more than 20 years ago, believes the future of the helium industry there is assured. As far as drillers have been able to discover, he said, the helium-bearing gas in the Dexter Field was almost unlimited in quantity and could be obtained in an area extending 5 or 6 miles in every direction from Dexter.

ALBERTA CONSIDERING CARBON BLACK PLANT

CHATHAM, Ontario, July 9.—The possibility of utilizing the waste gas of the Turner Valley and other Alberta fields for the manufacture of carbon black is being considered. Canada in 1925 imported from the United States some 5,951,976 pounds of carbon black valued at $369,588; and it is claimed the Alberta industry would not merely supply the Canadian market but develop an export trade to the United Kingdom, which in the same year imported 14,903,704 pounds valued at 1,221,119.

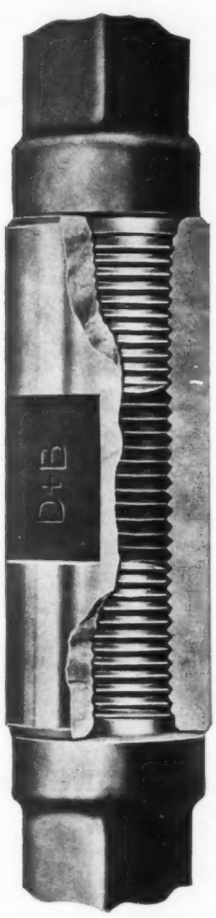
The establishment of a carbon black industry is possible under regulations provided some years ago by the Dominion Government. These regulations stipulate that the industry may be established where the gas utilized has no other immediate or reasonably prospective market. Several carbon black permits are understood to have been granted shortly after the regulations were passed; but no plants have ever been erected. At the time the Turner Valley Field was not regarded as open to the industry, but the immensely increased amount of gas for which there is no market may lead the Government to relax its conditions.

Announcing—

D+B

HeatreaT

Sucker Rods



100% MORE SERVICE

for 1 cent more per foot

The D & B Pump & Supply Company have developed a heat treating process which *doubles* the service of sucker rods, yet increases the cost only a cent per foot.

Scores of laboratory tests in bending, pulling and vibrating proved that heat-treating the D+B Sucker Rod Steel increased its strength, ductility, roughness and fatigue-resistance to a remarkable degree. Millions of feet have now been placed in actual field use with not a single broken pin reported.

D+B "HEATREAT" Sucker Rods are furnished regularly with the famous Whitworth Thread, which renders pin and coupling 15% stronger than the rod itself. Also furnished, on request, with A.P.I. Standard Thread.

"If CONTINENTAL Sells It, There Is No Better"

THE CONTINENTAL SUPPLY COMPANY
General Offices: St. Louis

Export Office: 74 Trinity Court, New York
London Office: 316-317 Dashwood House, Old Broad St., E. C. 2
THE CONTINENTAL SUPPLY CO., LTD.
69 Thomas Block, Calgary, Alberta, Canada

CONTINENTAL

The Deepest Core In The World was taken with the Elliott-Alco Core Drill

Indisputable proof of the supreme quality, efficiency and dependability of the Elliott-Alco Core Drill - - - and further proof that Elliott quality, efficiency and dependability are best in the long run.

A slight error and this story might have been different - - - a minor defect in the core drill might have caused endless trouble and expense - - - a mishap and the core, string and well might have been lost.

Elliott Service safeguards you against such might-have-beens. For every Elliott-Alco Core Drill has back of it years of Elliott Service that insures efficiency, economy and results.

Facts About The Deepest Core In The World:

Well: C.C.M.O. Co.'s Olinda No. 96, Olinda, California.
Core taken at bottom depth of 8,201 feet.
Core Drill: Elliott-Alco smallest size, Type "D," with head dressed to cut a 3⅞" hole.
Drill Pipe: 2" at 8,201 feet, with 93 set backs.
Pump Pressure: 800 lbs. to 1000 lbs.
Core: 1-foot (8,200' to 8,201') perfect.

Illustrations:

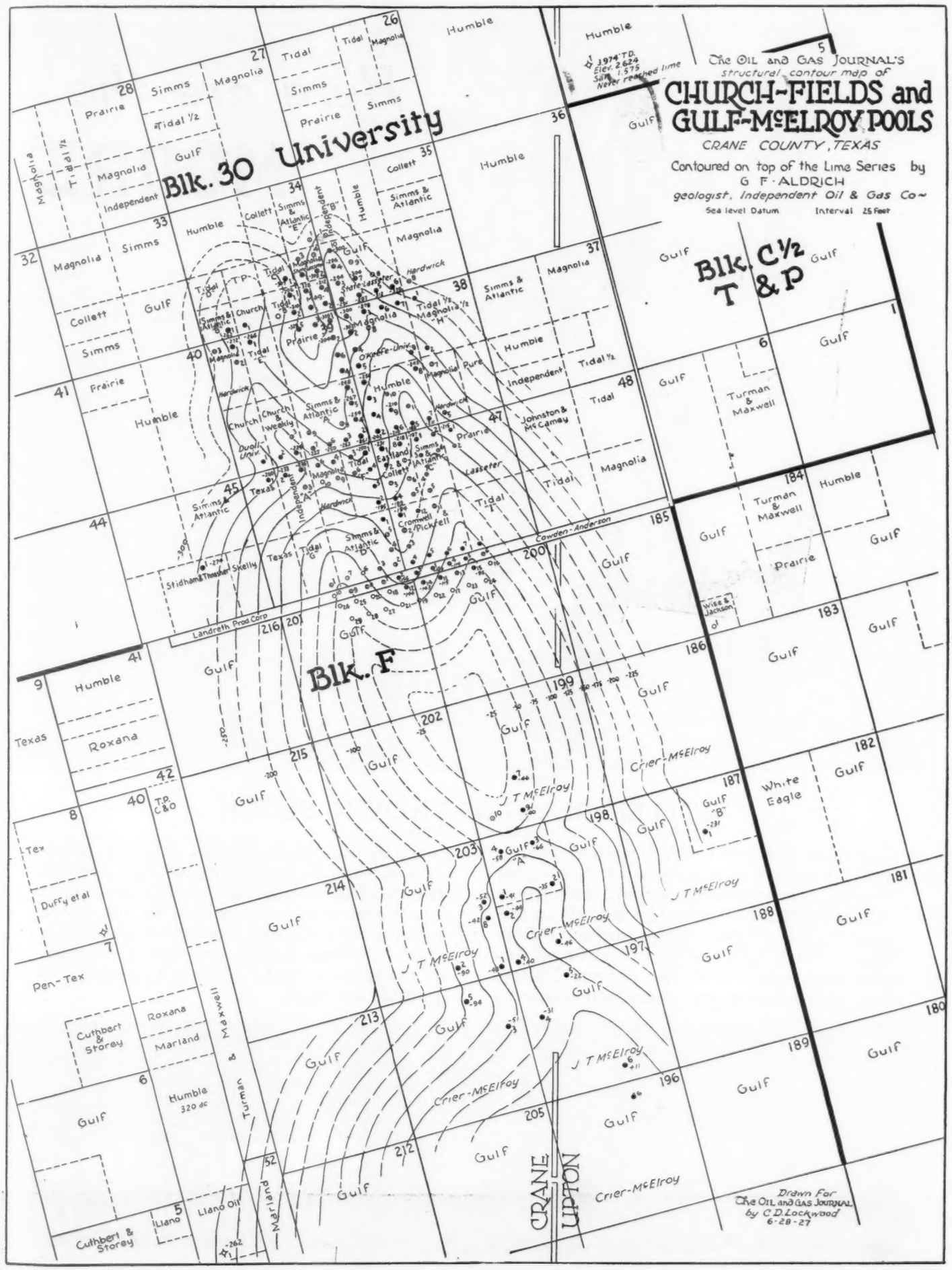
(1) The Crew: P. P. Pettit; C. F. Borgen, driller; A. C. Stassin; O. F. Caldwell; L. L. Blake; The Elliott-Alco Core Drill in foreground.
(2) C. F. Borgen, driller, holding the worn cutter head which took the core.
(3) Driller C. F. Borgen tells how he took the core.
(4) Fay Oliver, Elliott Company driller making-up the core drill.

ELLIOTT CORE DRILLING CO.
850 Subway Terminal Building
LOS ANGELES, CALIFORNIA

BRANCHES:
3210 Harrisburg Blvd., Houston, Texas
618 Lake Street, Shreveport, La.
123 East 3rd Street, Tulsa, Okla.
432 Park Street, Beaumont, Texas
10 C Street Southwest, Ardmore, Okla.

BRANCH OFFICE:
150 Broadway, New York City

If You Run An "Elliott-Alco" You'll Get the Core


The OIL and GAS JOURNAL'S
structural contour map of
CHURCH-FIELDS and
GULF-McELROY POOLS
CRANE COUNTY, TEXAS
Contoured on top of the Lime Series by
G F-ALDRICH
geologist, Independent Oil & Gas Co~
Sea level Datum Interval 25 Feet
Blk. 30 University
Blk. C½ T & P
Blk. F
Humble
Gulf
Simms
Magnolia
Tidal
Prairie
Independent
Collett
Simms & Atlantic
Church
Texas
Skelly
Stidham & Thrasher
Cowden-Anderson
Landreth Prod Corp
Johnston & McCamey
Turman & Maxwell
Roxana
Marland
Cuthbert & Storey
Duffy et al
Pen-Tex
Llano Oil
Llano
White Eagle
Crier-McElroy
J T McElroy
CRANE
UPTON
Drawn for
The OIL and GAS JOURNAL
by C.D. Lockwood
6-28-27

ROLLER BEARING CROWN BLOCK

(Patent Applied for)

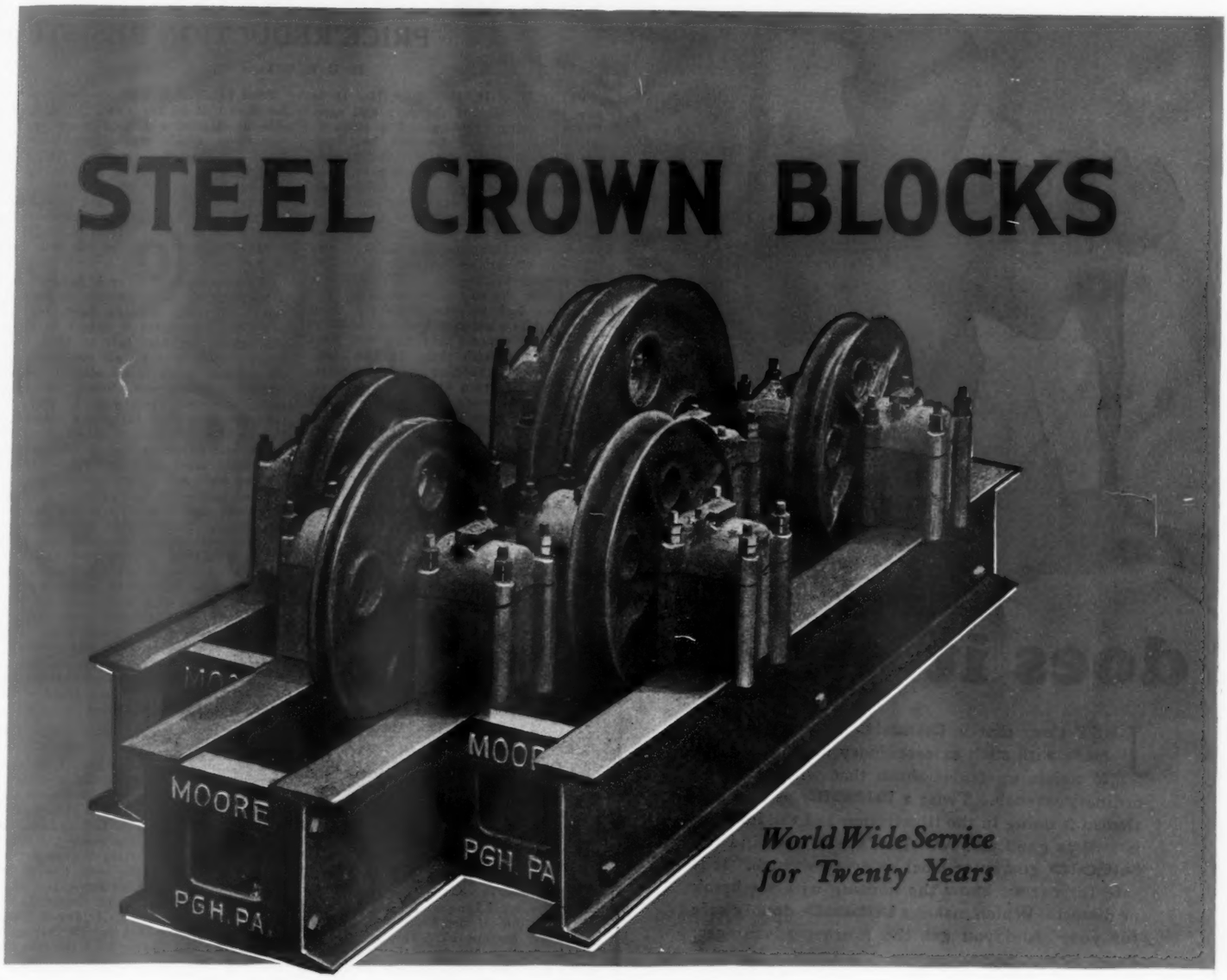
American straight roller bearings, operating on hardened and ground races, give smooth, easy-running action. The inner race is pressed on the cold rolled shaft; the outer race is pressed in the pulley. Pillow blocks which take the shaft may be adjusted to any position on the beams. Pulley, shaft and bearing are assembled ready to place in the pillow blocks. Alemite lubrication is used. A groove cast clear around the inside of the pulley distributes grease to a number of holes drilled in the outer bearing race. Crown blocks furnished with 6 or 7 pulleys, A. P. I. standard diameters, of manganese steel. 12 inch I beams @ 50 pounds are used.

Moore ALL STEEL RIG

LEE C. MOORE & COMPANY, *Inc.* PITTSBURGH · TULSA

Established 1907

STEEL CROWN BLOCKS



CHAIN OILED CROWN BLOCK

(Patent Applied for)

An endless chain, riding on the trunnion and passing through a reservoir of oil, lubricates the bearing continuously and automatically. The oil flows over the trunnion and returns to the reservoir through a groove in the lower half of the bearing. Each oil reservoir holds one pint. The bearings are adjustable to any position on the beams. Crown blocks furnished with 6 or 7 pulleys, A. P. I. standard diameters, manganese steel, cast iron, or cast iron with hard chilled grooves. In a 7 pulley block the fast line sheave can be furnished with roller bearings. 12 inch I beams @ 31.8 pounds or 12 inch @ 50 pounds are used.

EQUIPMENT

DALLAS, TEXAS HOUSTON, TEXAS WICHITA FALLS, TEXAS BORGER, TEXAS PARKERSBURG, W. VA.
CASPER, WYO. SHREVEPORT, LA. EL DORADO, KAN. EL DORADO, ARK.

What does it mean?

JUST this: that a RIDGID Pipe Wrench is made with such extraordinary metal guts that it stands up under abuse that will smash an ordinary wrench. Twist a RIDGID as the gentleman is doing in the illustration and the housing is still as good as new. That's why you find the RIDGID guarantee label on every wrench. It is safe for us; we know the housing will not break or distort. Which makes a RIDGID doubly safe for you. And you get the 7 other advantages, listed below, extra—

UNCONDITIONAL GUARANTEE
If this Housing ever Breaks or Distorts we will replace it Free
THE RIDGE TOOL CO. ELYRIA, O.

Unbreakable hook jaw—powerful I-beam handle—nut free in open housing—won't lock on a pipe—hang-up hole in handle—pipe-size scale—also made in End Pattern.

It has to be an extraordinary tool to get thousands of oil and gas men insisting that it's the best wrench they ever used. Get one from your Jobber or Supply Store and see for yourself.

THE RIDGE TOOL CO., Dept. O, Elyria, Ohio

RIDGID
PIPE WRENCHES VISES AND PIPE CUTTERS
WRENCHES

STEEL MILLS RUN 70 PER CENT; PRICE REDUCTION RESISTED

By B. E. V. Luty

PITTSBURGH, Pa., July 11.—It is now recognized that the iron and steel trade is going to have a dull summer. All along the line business has been dropping off in the past few weeks. Spot Connellsville coke was selling for less than the cost of production, demand decreasing so rapidly during the past three months that the continued curtailment week by week in production failed to restore the balance. The market was $2.85 to $3, firming up more or less in the past fortnight only to $3, which is still below the cost of production. The operators had to take $3.25 for third quarter coke when they had secured $3.50 for second quarter and had not been well satisfied with that. In the scrap market, heavy melting steel scrap recently declined to a $14.50 to $15 range, which was 50 cents below the low point struck twice since 1921, one of the times being in May of last year, and now some dealers think the chances are it will go a little lower still. The Valley-Pittsburgh pig iron market has been stagnant for months and even June brought little improvement when ordinarily there would be a fair volume of contracting for the new quarter. In finished steel products buying has decreased, no line of any importance failing to show a decrease.

Measured by the rate of steel ingot production, in the neighborhood of 130,000 gross tons daily, the steel industry is now running at about 70 per cent of full capacity, against a trifle over 90 per cent in March, and this month's production is expected to be considerably below that of last July.

Steel production held up very well in the first half of the year, the unfavorable developments having come in the past three weeks, when operations fell below the rate of a year ago. The four months, February to May inclusive, showed slightly heavier production than the same months of 1926, but with January and June below their corresponding months the half year's total is, say, 1 to 2 per cent under that of the first half of last year.

While, according to such figures, steel is practically holding its own, in the long run it is really slipping back, for the half year just ended is only 2 to 3 per cent above the first half of 1923, four years earlier, and by all considerations the tonnage needs to increase or the relationship grows poor. Steel making capacity increases from year to year, by refinements and a little new construction, while the country grows in population and efficiency and should be taking more steel year by year without putting forth any greater efforts.

Steel prices are holding quite well all along the line. Conjectures that decreasing demand would soften prices are not working out. Sellers recognize that price losses would be irretrievable and they make a correspondingly strong stand. This effort to hold prices is helped greatly by the fact that practically all buying is of hand-to-mouth character, in small individual orders, and there is no particular temptation to cut prices in quoting on a given inquiry, as only a small order would be gained thereby and competitors would promptly learn of the concession and do likewise.

CENTRAL WEST FIELDS

(Continued from Page 63)

corner of the Lewis A. Bohn 80 acres, Section 12. Same company is drilling No. 1 on the Andrew Paxton 104 acres, Section 12, and No. 1 on the Charles Brown 80 acres, same township. The Kemrow Co. is starting a test 500 feet from the south line and 330 feet from the west line of the Meiser & Eberhart 65 acres, Section 15. The Logan Gas Co. is starting No. 1 on the Ida Swope 160 acres, Section 3, Orange Township, and the Ohio Fuel Gas Co. is drilling No. 1 on the Emma Lucas 104 acres, Lot 99, Sullivan Township, same county.

In Hinckley Township, Medina County, Hulse & Kundtz drilled a light gas well in a test in the northeast corner of the Laura Carter 62 acres, Lot 31. The Ohio Fuel Gas Co. is drilling a test in the southeast corner of the W. E. Boje 99 acres, Lot 12, Liverpool Township. In Lafayette Township, the Logan Gas Co. is drilling a test on the I. C. Leggett 30 acres, Lot 8, and the Empire Gas & Fuel Co. made a location for No. 4 well, 600 feet from the north line and 300 feet from the west line of the Charles Puchhas 90 acres, Lot 36, same township.

The Ohio Fuel Gas Co. drilled a dry hole in a test in the northeast corner of the H. C. Martin 30 acres, Lot 18, Columbia Township, Lorain County.

Wayne County Gasser

An average gas well was drilled by the Logan Gas Co. in a test in the northwest corner of the C. A. Smith farm, Section 21, Congress Township, Wayne County. Same company has a location for a test 660 feet from the south line and 590 feet from the east line of the Ohio P. Ferguson 80 acres, Section 16, same township. In Milton Township, the East Ohio Gas Co. brought in an average gas well at a test in the southeast corner of the John Bannon 170 acres, Section 21, and Glen Harmon and others are drilling a test in the southeast corner of the R. C. McFadden 16 acres, Section 8, Chester Township.

In Holmes County, Hardy Township, the East Ohio Gas Co. is drilling No. 3 on the Harvey and Helen Bell 100 acres, Lot 29, and No. 2 on the Etta J. Nowells 76 acres, Lot 39, and in Monroe Township, the same company is drilling a test in the northwest corner of the Stephen R. Williams 100 acres, Lot 11, and the Empire Gas & Fuel Co. made a location for a test 400 feet from the north line and 860 feet from the west line of the Frederick A. Kinzey 99 acres, Lot 19.

In the Cleveland Field, Dover Township, Cuyahoga County, Arthur & Simpson has a dry hole at a test 750 feet north of the road and 75 feet from the east line of the J. M. Dugal 38 acres, Lot 6, and a fair gas well at No. 3 on the A. E. Guage 10 acres, Lot 7. Same firm is drilling No. 2 on the Kinkler 22 acres, Lot 7, and Goff Brothers are drilling No. 1 on the Decker 3 acres, Lot 6. In Olmstead Township, same county, the Logan Gas Co. is drilling a test in the northeast corner of the Don B. Hall 29 acres, Lot 22. J. W. Cushing is drilling No. 1 on the M. Slamack 18 acres, Lot 29, and Arthur & Simpson are drilling No. 1 on the D. K. Huntington 1 acre, Lot 20.

In Richfield Township, Summitt County, the East Ohio Gas Co. is drilling a test in the northwest corner of the I. J. and Lillie Woodruff 117 acres, Section 7.

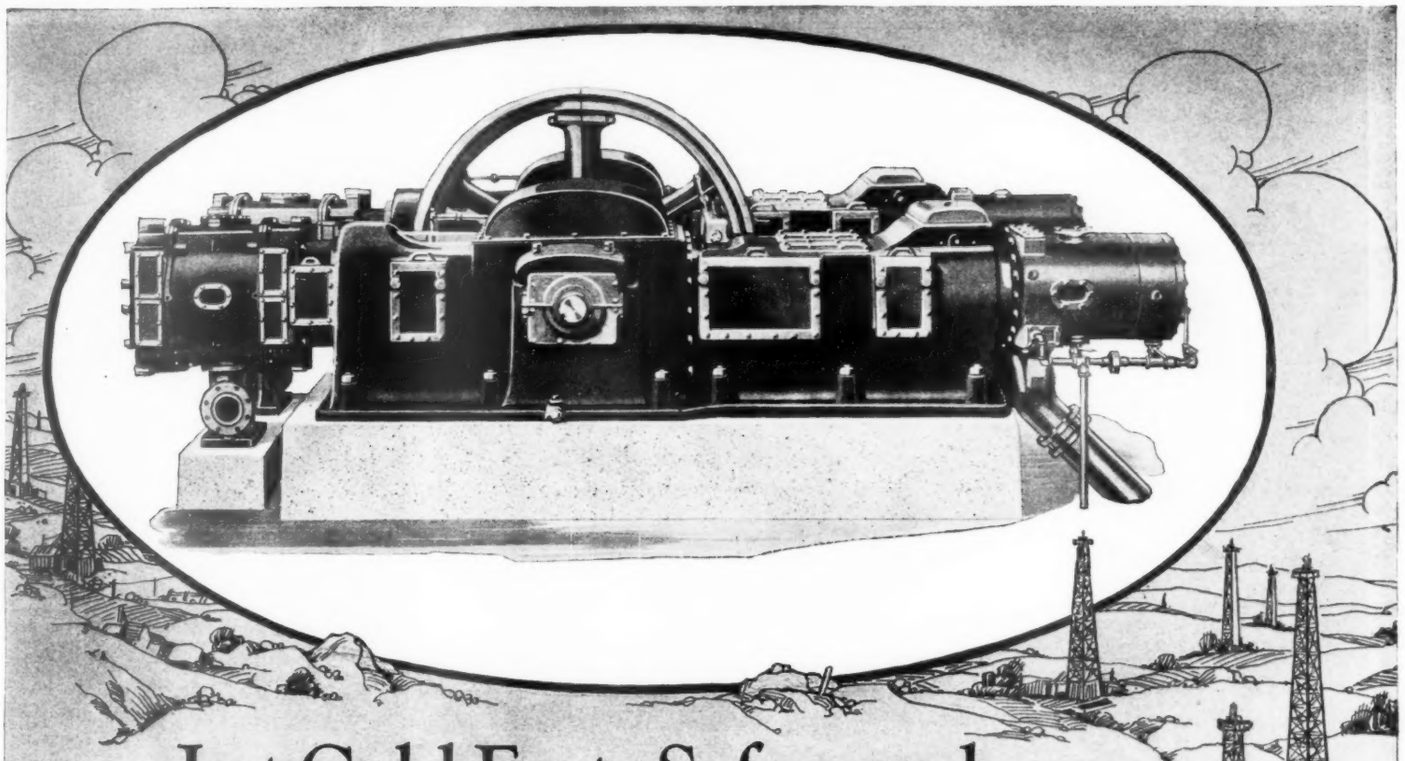
MILLION AUTOS FOR GERMANY

Within four or five years Germany will have 1,000,000 automobiles and will stand second in importance in Europe, declares Charles G. Jerosch, traveling representative in Europe for the Goodyear Tire & Rubber Co. With a population of approximately 63,000,000, Germany possesses only 318,000 automobiles, but the growth which will rapidly carry her up to the 1,000,000 mark already has begun.

ANDES PETROLEUM CONCESSION

The Venezuelan Government is reported to have granted Andes Petroleum Corp.-Atlantic Refining Co. exploitation rights on Lots Goagira 1 and 2, District of Paez, State of Zulia. It is understood Maxulian Petroleum Corp. and Paez Exploration Co. (Maracaibo Oil) were seeking the same concession.

J



Let Cold Facts Safeguard Your "Cold Cash"

WHEN you dig down into your treasury for a few thousand dollars (or a few hundred) to invest in gas compression—let the cold facts of proved performance safeguard this "cold cash" outlay.

What you expect is a cash return on your investment—compressor performance that will pay the highest dollar and cents interest by its low-cost output. You want (1) high mechanical efficiency, (2) high compression efficiency, (3) ruggedness to insure long, low cost service, (4) ready accessibility for adjustment or replacement to minimize idle time, (5) simplicity and (6) low operating and maintenance cost.

Bessemer compressors are outstanding in every one of these features, and a field survey of compressor performance will prove conclusively that Bessemers offer you greater dollar value, and greater protection for your compressor investment than any other units you can buy. Any Bessemer user will give you the facts you want. Ask him.

THE BESSEMER GAS ENGINE COMPANY
York Street :: :: :: Grove City, Pa.

BESSEMER

BESSEMER OIL FIELD ENGINES – COMPRESSORS VACUUM PUMPS – ROLLER PUMPING POWERS

THERE IS NO ECONOMICAL SUBSTITUTE FOR QUALITY

Tempered with quality

Basicly correct in design, proved by years of service . . . . operating under every conceivable pumping condition.

AXELSON PUMPS

AXELSON MACHINE COMPANY

P. O. Box 337, Los Angeles. Tulsa, St. Louis, New York City

Mid-Continent Distributors—Frick-Reid Supply Co.

Eastern Distributors—Frick & Lindsay Co.

WILDCAT OPERATIONS IN WEST TEXAS

(Continued from Page 38)

William Shafter et al's No. 1 University, C SE SE Sec. 9, Blk. 47, University Sur., elev. 2,344 ft. — Total depth 2,344 ft.; plugged back to 2,208 ft.; shot 10 qts. 2,170-95 ft.; shut down.

William Schafler et al's No. 2 University, 1,350 ft. N and 2,610 ft. E of SW cor. Sec. 9, Blk. 47, Univer. Land. — Top salt 1,060 ft.; drilling 1,705 ft.

W. W. Donnelly, Young, Logan & Hult's No. 1 Pierce, C SW Sec. 150, Blk. O, G. H. & S. A. Sur., elev. 2,105 ft. — Rainbow show 464 and 540 ft.; shut down for 10-in. 1,375 ft.

Word Oil Co.'s No. 1 Schneeman, N and W SE cor. Sec. 57, Blk. BB, G. C. & S. F. Sur., elev. 2,679 ft. — Top salt 1,035 ft.; sulphur water 2,490 ft.; total depth 2,575 ft.; trying to swedge pipe.

Young & Donnelly's No. 1 J. M. Shannon, C Sec. 11, Blk. 9, D. & S. E. Sur. — Spudded and shut down.

CULBERSON COUNTY

James H. Gardner et al's No. 1 Radford, C SE Sec. 29, Blk. 62, Public School Land Sur. — Straightening hole 420 ft.

Scott & Dittman's No. 1 Miller, SW cor. NW NE Sec. 1, School Blk. 97 — Spudded 50 ft.

DAWSON COUNTY

R. R. Penn's No. 1 Wright, Elev. 2,842 feet — Drilling 1,570 ft.

ECTOR COUNTY

J. S. Cosden, Inc., et al's No. 2 Connell-A, NW cor. NE Sec. 13, B-16, School Land, elev. 2,844 ft. — Top salt 870 ft.; top lime 3,177 ft., first show 3,420-22 ft.; pay 3,471-3,515 ft.; 160 ft. oil in hole; shot 180 qts.; estimated 1,000,000 ft. gas; swabbed and flowed 82 bbls. June 30; cleaned out; now swabbing 15 bbls.

J. S. Cosden et al's No. 3 G. W. Connell-A, SE cor. NE, Sec. 13, Block B-16 — Top salt 863 ft.; show oil 3,375 ft. and 3,499 ft.; top lime 3,195 ft.; shot 200 quarts 3,465-3,545 ft.; swabbed 7 bbls.; shot in water.

FISHER COUNTY

Zoch & McCamey and Marland Oil Co.'s No. 1 Lanius A (was Danciger O. & R. Co.'s No. 1 Lanius), NE cor. SE Sec. 15, Blk. Y, T. & P. Sur. — Set 5-in. 3,661 ft.; hole full water 3,770 ft.; drilling 3,827 ft.

Ideal Oil Co.'s No. 1 Jameson, C SE Sec. 111, Blk. 1, H. & T. C. Sur. — Hole full salt water 2,345-2,520 ft.; shut down for orders 3,304 ft.

Marland Oil Co. and Texon's No. 1 McCall, Sec. 108, Blk. 3, H. & T. C. Sur. — Rig.

Marland Oil Co. and Vacuum Oil Co.'s No. 1 J. H. R. Lagow, Sec. 3, Blk. 22, T. & P. Sur. — Hole full water 3,125-75 ft.; drilling 3,230 ft.

Miley Oil Corp. and Marland Oil Co.'s No. 1 W. W. Ammons, Sec. 198, Blk. 3, H. & T. C. Sur. — Drilling 1,900 feet.

R. W. Raney's No. 2 Maberry, Sec. 56, Blk. 1, T. & P. Sur. — Shut down for orders 2,725 ft.

Sinclair Oil & Gas Co.'s (was Bourdon Royalty Co.'s) No. 1 J. A. Danise, Sec. 6, Blk. K, T. & P. Sur. — Underreaming 12-in. 730 ft.

Stearns & Streeter's No. 1 W. A. Howell, N and E SW cor. NE Sec. 12, Blk. 23, T. & P. Sur. — Set 6-in. 3,565 ft.; shut down for fuel 3,808 ft.

The Texas Company's No. 1 D. S. Stevens, C SW SE SE Sec. 79, Blk. 1, H. & T. C. Sur. — Underreaming 10-in. at 1,978 ft.

FOARD COUNTY

C. H. Clark et al's No. 1, SW cor. Sec. 89, Blk. 44, H. & T. C. Sur. — Rig.

Fain-McGaha Oil Corp. & Roxana's No. 1 Matthews. — Sandy lime 855-60 ft.; 1,000,000 ft. gas; 3,000,000 ft. gas at 1,379-87 ft.; rig burned down.

Humble O. & R. and Navarro Oil Co.'s No. 1 L. McAdams, C S ½ Sec. 27, Blk. L, S. P. Sur. — Hole full water 2,560 ft.; drilling 3,460 ft.

The Texas Company's No. 1 Watkins — Drilling 1,070 ft.

GAINES COUNTY

Westheimer & Daube's No. 1 Birge & Forbes Land Co., Sec. 308, Terrell County School Land — Rotary drilling 3,610 ft.

GARZA COUNTY

Emerald Oil Co.'s No. 1 D. Boren, NW cor. NE Sec. 137, Blk. 5, H. & G. N. Sur. — Small show oil in gray lime 1,884-1,902 ft.; shut down 2,600 ft.; show oil and hole full water 2,420-60 ft.

Pandem Oil Co.'s No. 1 Justice, SW cor. NW Sec. 2, Blk. 6, H. & G. N. Sur. — Shut down 1,000 ft.

GLASSCOCK COUNTY

California Co.'s No. 1 W. B. Currie, Sec. 215, Blk. 29 — Spudding.

Green et al's No. 1 F. G. Oxsheer, Sec. 6, Blk. 34, T. & P. Sur., Elev. 2,540 ft. — Shut down 1,101 ft.

Landreth Producing Corp.'s No. 1 A. L. Houston — Drilling 1,215 ft.

World Oil Co. and J. S. Meriwether's No. 1 L. S. McDowell, C SW Sec. 43, Blk. 34, Twp. 2-S, T. & P. Sur., elev. 2,553 ft. — Top salt 1,180 ft.; drilling 1,710 ft.

R. P. Penn et al's No. 1 W. P. Edwards, C SE Sec. 11, Blk. 34, Twp. 2-S, T. & P. Sur., elev. 2,501 ft. — Slight show oil 905 ft. in brown sand; top salt 1,295 ft.; top lime 2,885 ft.; drilling 3,373 ft.

Sid Richardson, C. O. Collins and Merle Cadman's No. 1 Burns, NE cor. SW Sec. 183, Blk. 29 — Drilling 1,800 ft.

HOWARD COUNTY

Fred Carey et al's No. 2 G. O. Chalk, SE NW Sec. 124, Blk. 29 — Shut down 1,040 ft.; hole full salt water.

W. W. Donnelly et al's No. 1 Martin, SE cor. Sec. 41, Blk. 33, T-2 N, T. & P. Sur., Elev. 2,552 ft. — Drilling 1,975 ft.

Francis & Brunson's No. 1 J. W. Furrh, C SW Sec. 11, Blk. 31, T. & P. Sur., T-1-S — Location.

Marland Oil Co. and Zoch's No. 1 Jones, Sec. 32, Blk. 27, T. & P. Sur., elev. 2,218 ft. — Shut down 500 ft.

Marland Oil Co.'s No. 1 A. M. Fisher, Sec. 1, Blk. 33, T. & P. Sur., T-2-S, elev. 2,730 ft. — Pulling collapsed casing 1,380 ft.

L. C. Harrison et al's No. 1 Dora Roberts, Sec. 156, Blk. 29 — Drilling 1,300 ft.

Marland Oil Co. and Zoch's No. 1 Guitar est., No. 1, Sec. 4, Blk. A, Bauer & Cockrell Sur., elev. 2,517 ft. — Top salt 1,155 ft.; show oil 3,157 ft.; hole full sulphur water 3,600 ft.; ran 6-in. 2,864 ft.; drilling 3,930 ft.

HUDSPETH COUNTY

Lockhart Brothers' No. 1 Gardner & Moseley, C SE Sec. 5, School Blk. 21 — Shut down 225 ft.

IRION COUNTY

Cash Dollar et al's No. 1 G. J. Bird, NE Sec. 16, Blk. 10, S. P. R. R. Sur. — Shut down 2,500 ft.

JEFF DAVIS COUNTY

Humble O. & R. Co.'s No. 1 Crecencio Flores, Sec. 34, Blk. 58, T. & P. Sur. T-8 — Straightening hole 370 ft.

J. K. Hughes Dev. Co.'s No. 1 J. Z. Means, 600 ft. from N line and 2,000 ft. from W line of M. Robinson Sur. No. 1 — Hole full fresh water 2,075 ft., rainbow show at 3,180 ft.; fishing tools 3,494 ft.

JONES COUNTY

E. R. Brann's No. 1 E. M. Hawk, Sec. 71, Blk. 14, T. & P. Sur. — Moving in material.

Midwest Exploration Co.'s (was Campbell et al's) No. 1 L. H. Herndon, Sec. 6, M. E. P. & P. Sur., elev. 1,832 ft. — Top pay 2,498 ft.; deepening to 2,524 ft.; swabbed 115 bbls.; drilling ahead 2,533 ft.

Garland & Diamond's No. 1 E. D. Glynn, SE cor. Sec. 18, Deaf & Dumb Asylum Lands — Rig.

Gillette & Hickey's No. 1 M. E. Young, Tevanio Sur. No. 190 — Total depth 1,625 ft.; underreaming 6-in.

Campbell and Midwest Exp. Co.'s No. 1 L. H. Herndon. — Small show oil 2,558-61 ft.; drilling 2,630 ft.

Gillette & Hickey's No. 1 Young — Underreaming at 1,680 ft.

Hutson & Weaver's No. 1 Smith, Sec. 51, Blk. 18, T. & P. Sur. — Shut down for fuel 700 ft.

Kirk & Brewer's No. 1 J. H. Milsap, Justo Rodriguez Sur., League 357 — Hole full salt water 2,403-10 ft., rainbow show oil 2,720 ft.; drilling 2,740 ft.

Manhattan Oil Co.'s No. 1 S. W. King, Sec. 198, James Bartlett Sur. — Shut down 1,860 ft.

Marston Oil Co.'s No. 1 E. Howell, NW cor. SE W ½ of N 400 acres, Sec. 20, Blk. 19, T. & P. Sur. — Small show oil 2,496 ft.; shut down 2,545 ft.

Marston Oil Co.'s No. 1 J. S. Swan, Robert Spears Sur. No. 280 — Hole full salt water 2,390-2,400 ft. and 2,435 ft.; hole full salt water 3,015-20 ft.; drilling 3,290 ft.

W. G. Stough and others' No. 1 J. P. Willis, J. C. Patterson Sur. No. 2 — Total depth 1,330 ft.; cleaning out.

Stebbins Oil Co.'s No. 2 Higgs, SE cor. Sec. 30, W. T. Scott Sur. — Rig.

Swensondale Oil Co.'s No. 1 Caton, SW NW Sec. 9, Deaf & Dumb Asylum Lands — Drilling 1,730 ft.

Tomberlin et al's No. 1 Oscar Clapp, CSL SW Sec. 37, Blk. 16, T. & P. Sur. — Drilling 1,805 ft.

KENT COUNTY

Douglas Oil Co.'s No. 1 Scoggins, Sec. 57, Blk. 7, H. & T. C. Sur. — Drilling 3,070 ft.

Marland Oil Co. and Texon O. & L. Co.'s No. 1 Bilby, Sec. 41, Blk. K, Thompson Sur. — Location.

KNOX COUNTY

Deep Rock Oil Co.'s No. 1 Jones, CSL Sec. 111, Blk. C, H. & T. C. Sur. — Hole full water 2,850-62 ft.; underreaming casing 3,325 ft.

Deep Rock Oil Co.'s No. 1 Beavers, CSL Sec. 224, Blk. 44, elev. 1,441 ft. — Total depth 2,865 ft.; drilling by casing.

Deep Rock Oil Co.'s No. 1 Big Four, 1,270 ft. S and 2,590 ft. W of NE cor. Sec. 31, Blk. 4 — Shut down for 10-in. 1,150 ft.

Humble O. & R. Co.'s No. 1 Goode, 1,940 ft. S and 200 ft. W of NE cor. Sec. 7, H. T. & B. Sur. — Hole full water 1,710-15 ft.; drilling 2,285 ft.

The Texas Company's No. 1 J. O. Bowden, Sec. 115, Blk. 45, H. & T. C. Sur. — Lime 1,240-45 ft.; estimated 100,000 ft. gas.; drilling 1,300 ft.

The Texas Company's No. 1 Teague — Fishing bit 1,100 ft.

LOVING COUNTY

Kingwood Oil Co.'s No. 1 T. O. Moore, C NE Sec. 2, Blk. G-25, Public School Land, elev. 3,120 ft. — Top salt 1,210 ft.; show gas 1,600-15 ft.; shut down 2,725 ft.

Owens & Sloan's No. 1 W. D. Johnson, C SE Sec. 20, Blk. 53, T-2, T. & P. Sur.; Elev. 3,934 ft. — Shut down 1,020 ft.; in litigation.

LUBBOCK COUNTY

Sam Arnett et al's No. 1 Bowles ranch, Sec. 21, Blk. 5, G. C. & S. F. Sur. — Drilling 1,100 ft.

LYNN COUNTY

The Hart Oil Corp.'s No. 1 C. O. Edwards, NW NW Sec. 5, Blk. 2, L. & S. V. Sur. — Shut down 1,400 ft.; to skid rig.

MIDLAND COUNTY

Orbit Oil Co.'s No. 1 Moreland, C SE Sec. 17, Blk. 39, T. & P. Sur. T-1-S — Spudding 100 ft.

MITCHELL COUNTY

Robert Thraves' No. 1 C. Way, Sec. 91, Blk. 27, T. & P. Sur. T-1-N — Fishing 1,270 ft.

Magnolia Petroleum Co.'s No. 1 T. L. McKenney, Sec. 20, Blk. 29, T. & P. Sur. T-1-N — Drilling 3,610 ft. (corrected).

Tex-O-Kan Oil Co. and Robert Thraves' No. 1 W. F. Sanders — Fishing 870 ft.

H. E. Walter et al's No. 1 J. E. Dollen, NW cor. SW Sec. 11, Blk. 27, T. & P. Sur. — Shut down 3,955 ft.; hole full sulphur water.

NOLAN COUNTY

A. G. Malone et al's No. 1 J. B. Carlyle, Sec. 35, Blk. 23, T. & P. Sur. — Material on ground.

A. G. Malone et al's No. 1 M. C. McElmurry, Sec. 36, Blk. 20, T. & P. Sur. — Spudded and shut down; rig blew down.

J. H. Winemiller Corp.'s (was Peters et al's) No. 1 Booth, Sec. 90, Blk. 21, T. & P. Sur. — Shut down 960 ft. for water.

Herbert Oil Co.'s (was McClesky and others') No. 1 Pepper, SE cor. SW Sec. 29, Blk. 22, T. & P. Sur. — Rigged up and shut down.

Phillips Petroleum Co.'s No. 1 Scott, Sec. 58, Blk. 21, T. & P. Sur. — Drilling 3,335 ft.

Zweifel and others' No. 1 Longbotham, C SE Sec. 130, Blk. 1, H. & G. N. Sur. — Underreaming 10-in. 1,832 ft.

PECOS COUNTY

Allsman & Bell's No. 2 Pecos River bed — Drilling 100 ft.

George Anderson's No. 1 Sherbino Brothers, CWL NW, Sec. 43, Blk. C-4, G. C. & S. F. Sur. — Location.

Benedum & Trees' No. 1 J. C. Trees, C NW SE SE Sec. 30, Blk. 7, H. & G. Sur., elev. 2,556 — Shut down 3,185 ft.

Buell et al's No. 1 Batcheler, C N ½ NE Sec. 89, Blk. OW, G. C. & S. F. Sur., elev. 3,188 ft. — Show oil 1,700 ft.; flowed sulphur water 1,775 ft.; fishing 2,740 ft.

Buell & Hagan's No. 1 Jasper, 1 mi. S and W NE cor. Jasper Co. School Land No. 104 — Drilling 100 ft.

California Co.'s No. 1 I. G. Yates, 1,300 ft. out of SE cor. Sec. 34, Blk. 194, G. C. & S. F. Sur. — Drilling 460 ft.

M. C. Dibble & Hale's No. 1 Bonebrake, Sec. 115, Blk. 8, I. & G. N. Sur. — Shut down 500 ft.

Diamond Petroleum Co.'s No. 1 Blackstone & Slaughter, Sec. 27, Blk. 2-A — Location.

Bob Elmore's No. 1 M. Holmes, Sec. 542, Blk. 1, I. & G. N. Sur. — Shut down 510 ft. salt.

Garland & Mott's No. 1 El Paso Cattle Loan Co., C NE Sec. 26, Blk. 126, T. & S. L. Sur., elev. 2,562 ft. — Drilling 580 ft.

Geo. A. Henshaw, Jr., No. 1 Snyder, Sec. 29, Blk. 144, T. & St. L. Sur. — Location.

Kershaw & Livingston's No. 1 Cannon, SW cor. NE Sec. 54, Blk. A-2, T. C. R. R. Sur. — Location.

McMan O. & G. Co. and Marland Oil Co.'s No. 1 Yates, 330 ft. N and W of NE cor. Sec. 35, Blk. 194, but located in Sec. 34½ — Rigged up.

Marland Oil Co.'s No. 1 Yates, NE cor. Sec. 60, Blk. 1, I. & G. N. Sur. — Drilling 150 ft.

Mazda Oil Co.'s No. 1 M. A. Smith, NE cor. NW Sec. 24, Blk. 194, G. C. & S. F. Sur. — Spudded and shut down.

Moutray Oil Co.'s (was Pecos Big 3 Oil Co.'s) No. 1 Robertson, Sec. 28, Blk. 10, H. & G. N. Sur. — Drilling 850 ft. in lime.

Olean Petroleum Co.'s No. 1 Arthur Harral, C SE Sec. 98, Blk. A-2, T. C. R. R. Sur. — Location.

Olean Petroleum Co.'s No. 1 G. A. Harral, C SW Sec. 82, Blk. B-2, G. C. & S. F. Sur. — Rig on ground.

Olean Petroleum Co.'s No. 1 Sherbino Brothers, C NW Sec. 31, Blk. C-4, G. C. & S. F. Sur. — Location.

Quinby Oil Co.'s No. 1 Townsite, Sec. 1, Blk. 267, Client Addition Sur. Fort Stockton, elev. 2,980 ft. — Shut down 3,440 ft.

Quinby Oil Co.'s No. 2 Bennett, C NW 592, Blk. 105, G. C. & S. F. Sur., elev. 2,560 ft. — 200 ft. oil in hole from 1,216 ft., shot 20 qts. 1,208-20 ft.; hole full sulphur water 1,452 ft., total depth 1,457 ft.; shot 130 qts. 1,353-60 ft.; no results; shut down.

Quinby Oil Co.'s No. 1 A. A. Gray, 660 ft. N and 1,320 ft. E SW cor. Sec. 593, Abst. 3,009 — Shut down 700 ft.

Red Bank Oil Co.'s No. 1 Arthur Harral, C SE Sec. 35, Blk. C-4, G. C. & S. F. Sur. — Location.

Red Bank Oil Co.'s No. 1 McKenzie, C N ½ Sec. 21, Blk. 126, T. & St. L. Sur., elev. 3,256 ft. — Drilling 1,200 ft.

W. R. Shankel et al's No. 1 I. G. Yates, CSL SW SE SE, Sec. 58, Blk. 1, I. & G. N. Sur. — Top salt 425 ft.; 40 ft. oil 1,313 ft.; fishing tools 1,361 ft.

(Continued on Page 82)

PROTECT

Casing at all times, while running and pulling

*by insisting *on*

BOVAIRD Grip CASING ELEVATORS and SPIDERS

SUPPLY BOVAIRD COMPANY

* *most producers, both large and small insist on BOVAIRD for all casing jobs*

BOVAIRD

SUPPLY COMPANY

904 MID-CONTINENT BLDG.

Tulsa,---Oklahoma

CALIFORNIA FIELDS

(Continued from Page 56)

this test, No. 1 Sexton, due primarily to the development of difficult fishing job which prevented further drilling. Before abandonment the Milham will test out some upper showings. In the Buttonwillow area the Milham has landed a string of 11-inch in its No. 2 at 3,657 feet and the well will be tested out to ascertain the possibility of developing commercial gas production. The Milham's first test at Buttonwillow was destroyed by a heavy gas blowout followed by a disastrous gas fire which burned for several days before it extinguished itself. The Midway Gas Co. has a natural gas line located but a short distance from the property being tested out by the Milham and if a commercial gas supply could be developed the Milham will not have any difficulty in disposing of it.

Southern California Wildcats

The California Eas ern Oil Co. has suspended work on its No. 1 Cypress, a wildcat in the Potrero area at 5,043 feet due to the unfavorable outlook. The Associated is still drilling ahead in its second test in this section but it, too, looks like a duster. The failure of these two holes to secure commercial production does not necessarily indicate the absence of a new field at this point as the Associated appears to have practically every acre of potential oil land tied up. It is possible the Associated will make an early test of its original wildcat which has been s anding suspended since last November in a reported oil sand at 4,450 feet. The Smith Petroleum Co., which recently abandoned No. 1 Johnson, a wildcat in the Hawthorne area at 6,215 feet, is making preparations to start a second test a little over a half mile southeast. The new well will be drilled by the San Clemente Oil Co. on a 40-acre tract subleased from the Smith Petroleum. The new hole to be undertaken will undoubtedly be watched very closely, as every wildcat drilled in this area has encountered oil showings from time to time. This area certainly warrants additional tes ing regardless of the fact that some operators refuse to become enthused over the possibilities. The Southwest Petroleum Corp.'s No. 1 Ramsauer at Watts is scheduled to make a production test soon of some shallow showings found at 1,462 feet and while nothing big is anticipated the management deems it advisable to test out as drilling progresses rather than follow the usual procedure of testing on the way out.

GULF COAST FIELDS

(Continued from Page 51)

Co.'s No. 3 Beard, drilling around 2,709 feet.

Liberty County

D. J. Harrison's No. 1 Quintette, drilling at 4,110 feet with slight showing of oil on the pit. Union Sulphur Co.'s No. 3 Schliner, North Dayton Dome, drilling at 997 feet.

Jefferson County

Fannette Dome: Gulf Production Co.'s No. 3 Bordages, drilling below 5,735 feet. Big Hill Dome: Houston Oil Co.'s No. 2 Fitzhugh is below 3,400 feet. The Beaumont Prospecting Co.'s No. 1, located 3 miles northwest of Beaumont, is around 1,155 feet.

Orange County

W. C. Wells' No. 2 Stark is drilling below 4,135 feet.

Washington County

Pratt-Hewitt Co.'s No. 2 near Brenham is drilling around 3,080 feet.

Grimes County

Carlos Dome: Sanders & Steel's No. 1 is around 2,080 feet. B. O. Terrell's No. 2 Schumacker is rigging. Rio Bravo Oil Co.'s No. 1 Vick, 3 miles southwest of Bryan, is drilling.

Goliad County

Houston Oil Co.'s No. 1 Lott, 9 miles west of Goliad, rigging as a gas test. Company has a small gas well in No. 2 Pettus there.

Montgomery County

Beard and others' No. 1 fee is around 600 feet.

SOUTHWEST TEXAS

(Continued from Page 49)

Noack & Laning's No. 1 Neely, William Allen Survey, 150 feet to SE cor., has set casing and is ready to drill in, this test is in the southern extension to the field. Noack Oil Co.'s No. 7 Seelke, T. J. Chambers Survey, is location 300 feet southeast of No. 6. Rockdale Development Co.'s No. 3 Lorenz, Thompson Survey, has set casing.

Kingsville Field—Kleberg County

W. L. Pearson has made location for test, 8 miles southwest of the Kingsville Field on the Domingo Rotge tract, and let contract for the well. Houston Oil Co.'s No. 1 Kissman, Block 9, Section 41, is location and derrick material has been ordered out; Houston Oil-A. C. Erwin's No. 1 Kivlin, Block 7, Section 50, located 660 feet to SE cor., cored water sand at 2,742 feet. Humble Oil & Refining Co.'s No. 4 R. J. Kleberg, Block 6, Section 40, at 660 feet to east line and 810 feet to sou h line, is drilling at 1,100 feet; No. 1 Gulf-Dennett, Block 18, Section 38, at 630 feet to west line and 150 feet to north line, at 2,142 feet set casing to test top of sand at 2,118 feet; No. 1 Kleberg-Trustee, Block 8, Section 40, located 150 feet to NE cor., is drilling at 3,997 feet and will abandon at 4,000 feet; No. A-3 Dennett, Block 2, Section 39, NW cor., is shut down at 2,740 feet; No. 1 Kivlin, Block 4, Section 39, NW cor., is cleaning out, trying to get to the bottom, total depth 3,070 feet.

Adams Gas Field—Medina

Western Gas & Fuel-Medina Syndicate's No. 3 Chandler, 200 feet to north line and 1,400 feet to west line of tract, is drilling on hard rock at 20 feet. Western Gas & Fuel-Witherspoon Oil Co.'s No. 3 Adams, Block 7, at 400 feet to east line of lease, is rigging up. Witherspoon Oil Co.'s No. 1 L. J. Schmidt, Survey 526, located 800 feet to north line and 400 feet to east line, has set 10-inch at 84 feet; No. 3 J. P. Nixon, Survey 119, located 150 feet west of No. 2, the wild gasser, has set surface casing at 160 feet; No. 1 Nixon, Survey 527, located 800 feet to south line and 400 to east line, is location.

Refugio Gas Field—Refugio

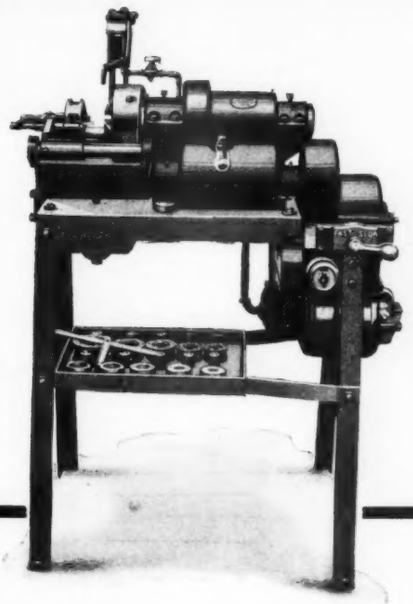
Houston Gulf Gas Co.'s No. 4 Shelly, is replacing liner at 2,100 feet and preparing to complete. Houston Oil-Pratt-Hewitt's No. 5 Rooke, is rigging up over old hole, depth 2,400 feet. Coast Gas Co.'s No. 7 Lambert is on sand at 2,600 feet and preparing to test. William F. Morgan, Inc., No. 2 Lambert is at 2,800 feet approximately and will probably be abandoned. Houston Gulf Gas Co.-Moody's No. 1 Wilson Heard is drilling below 1,920 feet. William F. Morgan, Inc., No. 2 Rose Rogers, a half mile from production, is standing at 2,440 feet; No. 1 S. J. Ryals, in center of field, took cores at 2,600 and 2,800 feet approximately, both showing oil, the last enough to cover the ditch, total depth is 3,000 feet and test will probably be abandoned.

Luling Field—Caldwell

Magnolia Petroleum Co.'s No. 10 Tiller, J. Henry Survey, 400 feet southwest of No. 1, is rigged up ready to start; No. 15 Stair, J. Henry Survey, 300 feet northwest of No. 12, at 2,088 feet was completed making 25 bbls. North & South's No. 1 Kelly, is drilling at 6,956 feet having got the tools loose; No. 2 Tiller is drilling at 6,412 feet.

Somerset Field—Atascosa and Bexar

Grayburg Oil Co.'s No. 14 Ed Wells, J. R. McKinney Survey, 1,500 feet to west line and 3,400 feet to north line, at 2,000 feet was completed for 5 bbls. G. E. Ginter's No. 1 Gayle, C. A. Yoakum Survey, 2,750 feet to north line and 150 feet to east line, is location. Grayburg Oil Co.'s No. 38 Ernest, W. C. Brown Survey, 825 feet to north line and 2,009 feet to west line, is drilling at 450 feet. Associated Petroleum Co.'s No. 16 Caruthers, William Caruthers Survey, 604 feet south of No. 2, is location; No. 2 Ernest, Survey 266, is location 550 feet west of No. 1. W. L. McClanahan's No. 5 Sodrok in the Adkins Field, 300 feet east of No. 4, is drilling.



FOR SPEED AND ACCURACY IN CUTTING AND THREADING ½" TO 2" PIPE, INSIST ON THE "TOLEDO" NO. 1000 M.

Just 7 seconds to cut off ½" pipe, or 13 seconds to thread; 14 seconds to cut off 2" pipe, or 28 seconds to thread it. Ream it while you are cutting the thread, chamfer it as you cut it off. This is all possible with the "TOLEDO" No. 1000M, the most perfect ½" to 2" pipe machine on the market.

Has instant change from cutting to threading or vice versa and but 10 seconds to change from one size of dies to another. It is equipped with universal motor that will operate from a lamp socket on any 110 volt current. An oil pump insures a constant flow of oil on the dies. Weighs but 460 lbs.

Dozens of owners tell us "It is the finest production unit on the market today," and at the new low net price its outstanding value is emphasized more than ever.

Order one from your dealer and you will find it will pay for itself in a short time.

THE NEW LOW NET PRICE IS

$325.00 (WEST OF ROCKIES $341.25)

F. O. B. Your Dealers Stock

When Results Are Required Insist On

"TOLEDO"

THE TOLEDO PIPE THREADING MACHINE CO. TOLEDO, OHIO

New York Office, 72 Lafayette St.

WILDCAT OPERATIONS IN WEST TEXAS

(Continued from Page 79)

Simms Oil Co.'s No. 1 A. J. Dowlin, C NE Sec. 12, Blk. [illegible] T. C. & S. F. Sur. ... Drilling 150 ft.
Texon O. & L. Co.'s No. 2 I. G. Yates ... Rainbow show 1,075 ft.; show oil 1,243 ft.; total depth 1,754 ft.; plugged back to 1,340 ft.; shot 180 qts. 1,240-65 ft.; no increase.
Texon O. & L. Co.'s No. 3 I. G. Yates ... Location.
John Dropplemann's No. 1 Mrs. L. Hershenson, Sec. 7, Blk. 51, T. & P. Sur. T-10 ... Top salt 2,640 ft.; hole full sulphur water 3,793 ft.; drilling 3,802 ft.
World Oil Co.'s No. 1 Serf, SW cor. NE Sec. 10, Blk. 130, T. & St. L., elev. 3,425 ft. ... Location.

PRESIDIO COUNTY

Headlock & Miller's No. 1 Tootle est., Sec. 123, Blk. 3, D. & P. Sur., elev. 2,912 ft. ... Shut down 2,550 ft.

REAGAN COUNTY

Henshaw & Camp's No. 1 University, Sec. 14, Blk. 48, University Land ... Rig shut down.
Marland Oil Co.'s No. 1 University-Anderson, Sec. 19, Blk. 58, University Land ... Location.

REEVES COUNTY

Deep Rock Oil Co.'s No. 1 Caldwell, C SW Sec. 22, Blk. 58, T. & P. Sur., Twp. 8 ... Hole full sulphur water 3,590 ft.; shut down 3,855 ft.
Exploration Co.'s No. 1 A. A. Kinney, 1,500 ft. W of NE cor. Sec. 26, Blk. C-18, Public School Land ... Spudded 20 ft. and shut down.
Humble O. & R. Co.'s No. 1-B Kloh, C NE Sec. 47, Blk. 56, T. & P. Sur. T-2-S, elev. 2,781 ft. ... 900 ft. sulphur water 1,760-1,800 ft.; top salt 2,765 ft.; drilling 2,805 ft.
David R. Thompson's No. 1 A. A. Eddins ... Moving in material.
World Oil Co.'s No. 1 Biggs, C SE Sec. 65, Blk. 112, Public School Land Sur., elev. 3,068 ft. ... Shut down 1,610 ft.; tools moved to No. 1 Duff.
World Oil Co.'s No. 1 Duff ... Top salt 1,940 ft.; drilling 2,050 ft.

RUNNELS COUNTY

Noble Oil Co.'s No. 1 Simms, Sec. 12 J. J. McHenry Sur. ... Shut down 1,680 ft.
Lou Ladd et al's (was Frank Yates') No. 1 R. M. McMillan ... Small show oil and gas 545-62 ft and 590 ft.; shut down 2,518 ft., contract depth.

SCHLEICHER COUNTY

Beavers & Leath et al's No. 1 J. A. and W. T. Whitten, C NW Sec. 35, Blk. 11, T. C. Sur. ... Spudded and shut down.
Thomas Grey et al's No. 1 Ball Robinson, C NW Sec. 25, Blk. M, G. H. & S. A. Sur. ... Drilling 1,640 ft.

SCURRY COUNTY

Northwest Co.'s No. 1 T. C. Stinson, NE NW SW, Sec. 101, Blk. 97, H. & T. C. Sur. ... Tested 8 bbls. 1,745 ft.; another pay at 3,402-07 ft.; bailed 70 bbls. oil in 4 hours and bailed dry; sulphur water 4,505-26 ft.

STERLING COUNTY

Inland Oil Co.'s No. 1 Durham, Sec. 12, Blk. T, T. & P. Sur. ... Location.
I. P. Williams' No. 1 Clark, NE NE SW Sec. 7, Blk. 8, G. C. & S. F. Sur. ... Shut down 1,088 ft.
I. Little's No. 1 Fisher Bros, Sec. 1 Blk. T, T. & P. Sur. ... Shut down 1,436 ft.
Orr et al's No. 1 Neal Reed, CNL Sec. 15, Blk. 30, W. & N. W. Sur. ... Rigging up.

STONEWALL COUNTY

J. P. Johnson's No. 1 R. P. Morrow ... Rigging up.
R. F. Garland & Co.'s (was McCamey & Zoch's) No. 1 J. Ward, C SW Sec. 153, Mrs. Ward Dob.s Sur., 3 mi. NW of Aspermont ... Shut down for orders 2,570 ft.

TAYLOR COUNTY

A. J. Brown et al's No. 1 Henslee, NE cor. Sec. 5, Blk. 4, S. P. R. R. Sur. ... Skidded rig 30 ft. north and spudded 50 ft.
Dorning & Perrine's No. 1 J. A. Hammer, C N 100 acres, Sec. 23, Blk. 19, T. & P. Sur., elev. 1,904 ft. ... Shut down 455 ft.
Gilbert Johnson's No. 1 C. M. Brown, Sec. 1, Blk. 6, T. & P. Sur. ... Spudded and shut down.
W. E. Halbert et al's No. 1 Hunt, C SE Sec. 124, Blk. 64, H. & T. C. Sur. ... Drilling 2,055 ft.
Humble O. & R. Co.'s No. 1 Mattie Jacobs, Sec. 1, Nabors Sur. ... Drilling 2,750 ft.
Morrison & Thompson's No. 1 Mrs. Alice Rose, SW cor. NE Sec. 29, Blk. 19, T. & P. Sur., elev. 1,925 ft. ... Shut down 2,540 ft.; fishing tools.
Owen & Sloan's No. 1 Lattimer, Sec. 14, Blk. 9, T. & P. Sur. ... Total depth 2,275 ft.; shut down.
Roeser & Pendleton's No. 1 Sam Hutman, C W ½ NW Sec. 64, Blk. 5, T. & P. Sur. ... Drilling 900 ft.
Sanger O. & R. Co.'s No. 1 Ike Brown, NE cor. Sec. 54, Blind Asylum Land ... Drilling 2,575 ft.
Sanger O. & R. Co.'s No. 1 Stem ... Location.
World Oil Co.'s No. 1 J. R. Griffith, SW cor. NE Sec. 32, Blind Asylum Land, elev. 1,747 ft. ... Water at 2,850 ft.; total depth 3,021 ft.; underreaming 6-in.

TERRY COUNTY

Kingsland Oil & Potash Co.'s No. 1 Brownfield, C NW SW SW Sec. 7, Blk. 1-A, E. L. & R. R. Sur. ... Moved in rotary 1,800 ft.; shut down.

TOM GREEN COUNTY

Camp's No. 1 H. D. Wilkey, Sec. 4, B. A. L. Sur. ... Shut down 670 ft.
Fitzgerald et al's No. 1 Bennett ... Drilling 600 ft.
Marland Oil Co.'s No. 1 Llano, 3,500 ft. S and 13,000 ft. W of NE cor. Llano Co. School Land No. 964 ... Total depth, 3,195 ft.; underreaming and cleaning out.
Tulsa Oil Co.'s No. 1 Adams, C SW Sec. 162, Blk. 11, S. P. R. R. Sur. ... Spudding.

UPTON COUNTY

Hults et al's No. 1 Giddings, C Sub. Sec. 12, Throckmorton Co. School Land, elev. 2,761 ft. ... Top salt, 1,515 ft.; drilling 3,615 ft.
Hults et al's No. 2 Giddings, 5,336 ft. S and 6,678 ft. E of NW cor. Throckmorton Co. School Land, league 1. ... Rig; drilling water well.
Levi Smith and Marland's No. 1 University, C E ½ Sec. 17, Blk. 5, University Land ... Hole full salt water 630-40 ft.; drilling 670 ft.
Marland Oil Co.'s No. 3 Burleson, T. C. Jones Sur. No. 100 ... First pay 2,295 ft., second pay 2,295 ft.; 2,000 ft. sulphur water 3,390-95 ft.; 1,000 ft. sulphur water 4,135 ft.; drilling 4,592 ft.
Marland Oil Co.'s No. 34 Burleson, Sec. 100, T. C. Jones Sur. ... Shut down 3,255 ft.
Simms Oil Co.'s No. 1 B. C. Clark, NE cor. SW, Sec. 5, G. C. & S. F. Sur., elev. 2,473 ft. ... Top salt 470 ft.; top lime 1,718 ft.; sulphur water 1,834-50 ft.; fishing 2,205 ft.
Wise & Jackson's No. 1 J. H. Porter, SW cor. SW SW Sec. 184, Blk. E ... Rig.

VAL VERDE COUNTY

A. Blume et al's No. 1 Moore est., Sec. 183, J. Mitchell Sur. ... Shut down 3,000 ft.
Curso Williams' No. 1 Holman, NE NE Sec. 5, Blk. N, G. H. & S. A. Sur. ... Fishing 2,940 ft.
Douglas Oil Co.'s No. 1 Sellars, C SE Sec. 82, Blk. A, I. & G. N. Sur. ... Total depth 3,020 ft.; rig rebuilt.
East Del Rio Oil Co.'s No. 1 Russell, SE cor. Sec. 183, Del Rio Town Sur. ... Shut down 3,190 ft.; 25,000 ft. gas.
Hiawatha Oil Co.'s No. 1 Sellars, C Sec. 1,031, Blk. A, I. & G. N. Sur. ... Hole full salt water 2,455 ft.; drilling 2,800 ft.; lime.
Magnolia Petroleum Co.'s No. 1 Whitehead, Sec. 81, Blk. D, G. C. & S. F. Sur. ... Shut down 610 ft.; lime.
Independent Operators' No. 1 Whitehead, SE SE Sec. 30, Blk. 4, I. & G. N. Sur. ... Shut down 3,900 ft.
O. O. Owens' No. 1 Mills, Sec. 128, Blk. 1, I. & G. N. Sur. ... Flowing sulphur water 2,300-25 ft.; making 3,000,000 ft. gas with good gasoline content 2,491-2,502 ft.

WARD COUNTY

Marland Oil Co.'s No. 1 J. Sealey, C SE Sec. 78, Blk. A, G. M. M. & A. Sur., elev. 2,820 ft. ... Hole full fresh water 970-80 ft.; top salt 1,100 ft.; hole full sulphur water 3,245-48 ft.; run 6-in. 3,294 ft.; total depth 3,506 ft.; 8-in. parted; fishing.

WINKLER COUNTY

Atlantic O. P. Co.'s No. 1 Hendricks, Sec. 34, Blk. B-5, elev. 2,823 ft. ... Drilling.
Champlin Drilling Co.'s No. 1 C. W. Cowden, C SW Sec. 21, Blk. C-23, Public School Land, elev. 2,859 ft. ... Hole full water 2,385 ft.; drilling 2,925 ft.
Group 1 Humble O. & R. Co.'s No. 1 T. G. Hendricks, C SE Sec. 36, Blk. 27, elev. 2,823 ft. ... Drilling 1,035 ft.
Humble O. & R. Co.'s No. 1 T. G. Hendricks, S and W NE cor. W ½ NE Sec. 33, Blk. B-5, Public School Land ... Top salt 1,480 ft.; drilling 1,500 ft.
Independent O. & G. Co.'s No. 1 Hendricks-A, elev. 2,816 ft. ... Top salt 1,785 ft.; 250,000 ft. gas 2,555-75 ft.; set 8-in. 2,595 ft.
Independent O. & G. Co.'s No. 2 Hendricks-A, elev. 2,822 ft. ... Drilling 1,375 ft.
McCullough Oil Co.'s No. 1 Tobe Morton, CEL Sec. 20, Blk. L-12, Public School Land, elev. 2,750 ft. ... Hole full salt water 1,940 ft.; shut down 2,010 ft.
R. S. Matthews et al's No. 1 State, C Sec. 7, Blk. A-57, Public School Land Sur., elev. 3,120 ft. ... Drilling 1,405 ft.
Murchison Oil Co. et al's No. 1 Grisham-Hunter ... Rig.
Pure Oil Co.'s No. 1 Hendricks, SW cor. Sec. 41, Blk. B-5, Public School Land, elev. 2,823 ft. ... Drilling 1,850 ft.
Pure Oil Co.'s No. 2 Hendricks, elev. 2,827 ft. ... Top salt 1,518 ft.; top lime 2,396 ft.; cemented 8-in. 2,479 ft. and shut down.
Roxana Petroleum Corp. and Llano Oil Co.'s No. 1 Scarborough, C Sec. 1, Blk. C-22, Public School Land, elev. 2,921 ft. ... Top salt 1,115 ft.; hole full water 1,321 ft.; 10-in. set 1,570 ft.; top pay 2,990 ft.; second pay 3,124-28 ft.; swabbed 35 bbls. after 42 hours; drilling 3,245 ft.
Skelly Oil Co.'s No. 1 M. M. Leeman, 1,320 ft. E of SW cor. Sec. 21, Blk. 75, elev. 2,951 ft. ... Top salt 1,167 ft.; drilling 5,095 ft.
Southern Crude Oil Pur. Co.'s No. 3-C Hendricks, SE cor. NE Sec. 33, Blk. B-5, elev. 2,816 ft. ... Top salt 1,870 ft.; little gas 2,630-40 ft.; shut down for orders 2,735 ft.; making 2,000,000 ft. gas and 1 bbl. oil; top lime 2,630 ft.
Southern Crude Oil Pur. Co.'s No. 4-C Hendricks ... Cementing 8-in. 2,525 ft. and shut down.
Southern Crude Oil Pur. Co.'s No. 1 Hendricks A-1, SE cor. NE Sec. 44, Blk. 26, elev. 2,854 ft. ... Cementing 8-in. 2,371 ft.; top salt 1,907 ft.; shut down 2,710 ft.
Southern Crude Oil Pur. Co.'s No. 1 Hendricks-D, SE cor. NE NW Sec. 4, Blk. B-12 ... Drilling 1,170 ft.
Southern Crude Oil Pur. Co.'s No. 1-F Hendricks, Sec. 33, Blk. B-5, NE cor. SE ... Drilling 1,825.
Texon O. & L. Co.'s No. 1 Central State Bank, SW cor. W ½ SE Sec. 41, Blk. B-5, elev. 2,828 ft. ... Top salt 1,610 ft.; drilling 2,365 ft.
White Eagle O. & R. Co.'s (was Gibson & Johnson's) No. 1 R. A. Lock, 1,320 ft. W of NE cor. Sec. 30, Blk. 74, NW of discovery well, elev. 2,830 ft. ... Total depth 1,710 ft.; swedging 10-in. at 1,656.

HOLLAND IMPORTING MORE U. S. GASOLINE

During the first four months of 1927 the Netherlands imported 68,018 metric tons of kerosene valued at 6,098,000 florins, a slightly smaller quantity but considerably higher value than those for the corresponding period of 1926, when arrivals totaled 68,526 tons valued at 4,853,000 florins. The United States continues to be the most important supplier, although its participation dropped from 65,695 tons in 1926 to 60,721 tons in 1927, while that of Belgium increased from 1,019 to 2,153 tons, Great Britain from 163 to 1,803 tons, and Russian from 1,620 to 1,981 tons.

Due to the increasing number of automotive vehicles the importation of gasoline shows a fair increase. The January-April period of 1927 imported 45,626 tons valued at 6,211,000 florins, compared with 37,475 tons valued at 5,806,000 florins imported during the corresponding months of 1926. The United States continues to be the principal supplier and has increased its participation far more than competitors. In the first four months of 1926, 25,706 tons arrived from the United States, which increased to 38,751 tons this year. Belgium dropped from 5,667 to 4,101 tons; Netherlands East Indies from 3,003 to 1,803 tons. In the former period 3,000 tons arrived from Persia, which is not shown as a country of origin in 1927. Russia appears in the 1927 period as a supplier of 819 tons.

These figures do not indicate the full consumption of these two products in the Netherlands, as both are produced in the Rotterdam installation of the Bataafsche Import Mij from crudes imported from Mexico. Exports of kerosene and gasoline are negligible.

Kerosene retails at 14 Dutch cents per liter, wholesale price 11½ cents. Gasoline retails at pump stations at 16 cents per liter, equivalent to the average price in 1913, though some few stations advertise cut rates. Wholesale price to average dealer remains at 14 cents.

An element of uncertainty has recently marked the distribution of petroleum products. The Purfina company (Soviet) has announced a campaign against the so-called "trusts," though it has so far obtained only a small amount of gasoline business in The Hague, Rotterdam and Amsterdam. It is apparently neglecting the rest of the country, where the established oil companies maintain large numbers of pumps producing but little revenue.

Since the greater number of the 4,200 gasoline pumps in the Netherlands are owned by the established oil companies who loan them to dealers distributing their products, and since Purfina has only a few pumps, it is not generally expected that it will seriously disturb the market.

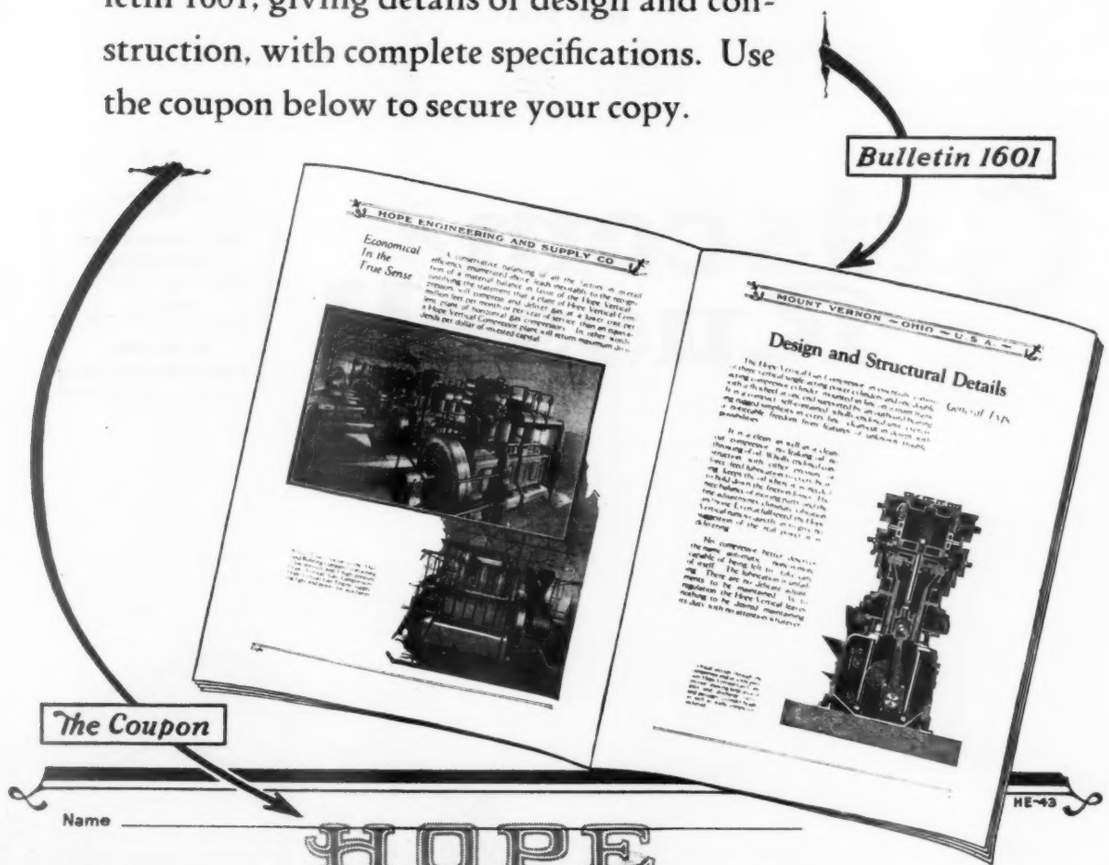
JAVA FIELD OUTPUT HAS BEEN DECLINING

For some time the production of the oil wells of the Dordtsche Petroleum Maatschappij at Tjepoe, Java, has been declining, and in recent months the company has been compelled to import oil from Sumatra. A large proportion of the petroleum requirements of middle Java and Soerabaya have heretofore been satisfied by the Tjepoe fields, and reduced production has proved a considerable handicap; whether it can be brought back to former proportions it not known.

Not long ago it was stated in the local press that a new well had been brought in which has a daily productivie capacity of 70 tons; should this yield be continued for an indefinite period the position of the company as a supplier of petroleum products in the district would be more favorable than at present. In the meantime the American firm selling petroleum products here, which has been obliged to import practically all of its products from the United States, is about to obtain them from its refineries in Sumatra.

HOPE
VERTICAL
COMPRESSORS

"The Modern Gas Compressor for the Modern Plant" is fully described in Bulletin 1601, giving details of design and construction, with complete specifications. Use the coupon below to secure your copy.



Name _____

Mailing Address _____

City _____ State _____

Company _____

HOPE ENGINEERING AND SUPPLY COMPANY
MOUNT VERNON, OHIO, U.S.A.
DALLAS, TEX. TULSA, OKLA. CASPER, WYO.

The G-R Mineral Seal Oil Heat Exchanger

Strictly counter-current flow.
All oil connections at same end.
Easy to inspect, clean and transport.
Positive provisions against expansion strains.

Write for full information

The Griscom-Russell Co., 285 Madison Ave., New York

Philadelphia	Chicago	St. Louis	San Francisco
Boston	Detroit	New Orleans	Los Angeles
Rochester	Cleveland	Dallas	Seattle
Pittsburgh	Milwaukee	Houston	Salt Lake City
Columbus	Minneapolis	Atlanta	Tulsa
Indianapolis	Kansas City	Charlotte	Denver

For Canada: Riley Engineering and Supply Co., Ltd., Toronto

Griscom-Russell

HEAT EXCHANGERS
CONDENSERS
Sub-cooling—Partial—Reflux
Shell-and-Tube, Atmospheric, and Condenser Box Types
COOLERS
Liquid—Gas—Jacket Water
Shell-and-Tube, Atmospheric, and Condenser Box Types
OIL HEATERS
LEVEL CONTROLLERS

Typical Installation of G-R Mineral Seal Oil Heat Exchangers

WILDCAT OPERATIONS IN PANHANDLE

(Continued from Page 40)

DONLEY COUNTY

A. T. Drlg. Co.'s No. 1 F. E. Harington, Sec. 39, Blk. 3-C . . . . . 1,200 ft. water, 3,115-22 ft; show gas, 3,140-60 ft; dry granite wash, 3,260-93 ft; S.D., 3,498 ft. for water.

DICKENS COUNTY

Bowser Mickels et al's No. 1 Pitchford ranch, Sec. 1, Blk. 1, Sam Lazarus Sur. . . . . S.D., 3,355 ft; corrected depth.

FLOYD COUNTY

Explth. Co.'s No. 1 S. H. Boone, C C. H. Johnson Survey . . Rig.
Explth. Co.'s No. 1 Land & Cattle Co. . . . . Rigging up.

GRAY COUNTY

Atlantic O. P. Co.'s No. 1 Combs & Worley, NW cor. NE Sec. 39, Blk. 3 . . . . . Drlg; show oil, 3,005 ft; drlg. ahead.

Archer, Blake et al's No. 1 Turneau, Sec. 111, Blk. 2-B. Spudded and S.D.
Amos et al's No. 1 Crews, NW cor. Sec. 9, Blk. 25 . . . . . 4,000,000 ft. gas, 2,270-75 ft; show oil, 2,700 ft; drlg., 2,752 ft.

Bay Shore Oil Co.'s No. 1 C. W. Bradford, Sec. 143, Blk. 2-B . . . . . Killed gas fishing for bit, 2,668 ft.

British-Amer. O. Co.'s No. 1 J. E. Meers, Sec. 107, Blk. 3. 58,000,000 ft. gas and slight spray oil; S.D., 3,190 ft; will possibly complete as gasser.

British American Oil Co.'s No. 1 J. M. Patton, Sec. 61, Blk. B-2 . . . . . Rigged and S.D; temp. abd.
Cole O. & G. Co.'s (was Magdalene Oil Co.'s) No. 1 J. E. Williams, Sec. 17, Blk. 1 . . . . . S.D., 3,860 ft.
Donley Gray Oil Co.'s No. 1 J. W. Gordon . . . . . Spudded and S.D.
Jack Doyle's No. 1 D. W. Osborne, SE cor. Sec. 109, Blk. 3 . . . . . Rig.
Edwards et al's No. 1 E. J. Case, NE cor. Sec. 182, Blk. B-2, H. & G. N. Sur. . . . . Drlg., 650 ft.
Empire G. & F. Co.'s No. 1 J. E. Cubine, NE cor. NW Sec. 36, Blk. 25 . . . . . 6,000,000 ft. gas, 2,342-60 ft; top granite wash, 2,397 ft; set 8-in. pipe, 2,472 ft; drlg., 2,815 ft.

Empire G. & F. Co.'s No. 1 J. A. Hood, SW cor. SE Sec. 33, Blk. 3 . . . . . Drlg., 2,770 ft.
Empire G. & F. Co.'s No. 1 J. M. Saunders, SW cor. SE Sec. 4, Blk. 3 . . . . . 500,000 ft. of gas, 2,828-45 ft; drlg., 2,920 ft.

Empire G. & F. Co.'s No. 1 J. F. Meers, NE cor. SE Sec. 107, Blk. 3 . . . . . T.D., 3,160 ft; steel line measurement, show fresh water; swabbed 50% water; swabbed down oil and water gone; drlg., 3,168 ft; 1,000 ft. oil in hole, fishing.

Empire G. & F. Co.'s No. 1 Webb, SW cor. Sec. 59, Blk. 25; elev. 2,534 ft. . . . . Shot with 180 qts., 2,841-80 ft; show oil, to shoot again.

Lefors Pet. Co.'s No. 1 Leach, Lefors Townsite. . . . . Spudded and S.D.
Gladis Gray's No. 1 Colebank-Morse (was Foster et al's No. 1 G. Cutebank), SW cor. NE Sec. 65, Blk. 25. . . 2,905 ft., T.D; plugged back to 2,803 ft; shot 160 qts., 2,430-2,510 ft; 1,200 ft. oil in hole; bailed dry; shot with 600 qts., 2,479-2,525 ft; cleaning out, swabbing 35 bbls. daily.

Gulf Prod. Co.'s No. 1 Bowers, Sec. 89, Blk. B-2 . . . . Drlg., 2,275 ft.
Gray County Pet. Co.'s No. 1 Herndon, Sec. 147, Blk. 3 Hole full of salt water, 3,300 ft.

Gray County Pet. Co.'s No. 1 A Chapman . . . . . Drlg., 1,090 ft.
Neudigate et al's No. 1 A. Chapman, NE cor. E half SE Sec. 52, Blk. 25 . . . . . Drlg., 2,015 ft.
Pampa Oil Co.'s No. 1 W. R. Campbell, Sec. 90, Blk. 3. . Drlg., 1,100 ft.
Pampa Pet. Co.'s No. 1 Mary Leopold, Sec. 141, Blk. 3. . Water, 3,230-60 ft; slight oil show in granite wash, 3,572-75 ft; drlg., 3,615 ft.

Petroleum Explth. Co.'s No. 1 L. C. McConnell, SE cor. NW Sec. 174, Blk. 3 . . . . . Run. 8-in. pipe to 2,220 ft.
Purple Sage Oil Co.'s No. 1 Johnson, Sec. 8, Rockwell County school land . . . . . First oil show, 2,645 ft; water, 2,660 ft; show oil in granite wash 2,790-95 ft; 8-in. casing set, 2,803 ft; show gas, 2,814 ft; drlg. red rock and granite wash, 3,040 ft.

Riley & Heck's No. 1 Mrs. Hopkins, Sec. 66, Blk. 2-B . . Show oil, 3,020 ft; dropped 6-in casing in hole; drlg. by 11 joints 6-in.

Rensoul Pet. Co.'s (was Salisbury & Reynolds') No. 1 M. Huselby, C SE NE NE Sec. 55, Blk. 25, H. & G. N. Sur. . . . . Flow, 30 bbls. daily from granite wash topped, 2,407 ft; drlg., 2,590 ft.

Roxana Pet. Corp.'s No. 1 Combs & Worley, NE cor. NW, Sec. 39, Blk. 3 . . . . . Drlg., 2,425 ft.
Roxana Pet. Corp.'s No. 1 R. S. McConnell, NE cor. E half SW, Sec. 174, Blk. 3 . . . . . U.R. 8-in. casing at 2,440 ft.
C. B. Shafer's No. 1 G. Cole, SE cor. W half SW Sec. 105, Blk. 3 . . . . . Fish. for pipe, 3,313 ft; 2,000 ft oil in hole, S.D.

Sullivan et al's No. 1 fee, NW cor. E half SW, Sec. 1, Blk. 1, A. C. H. & B. Sur. . . . . Spud.
J. Williams et al's No. 1 C. W. Bradford, Sec. 123, Blk. B-2 . . . . . Rig temporarily abd.

HALE COUNTY

Exploration Co. No. 1 Crawford, Cen. NE, Sec. 17, Blk. C-3, T. T. R. R. Sur. . . . . Location.
Explth. Co.'s No. 1 fee C SE half Sec. 19, Blk. S-4, D. & S. E. Sur. . . . . Rig.
Explth. Co.'s No. 1 Goodman . . . . . Building rig.
A. S. Mimm's No. 1 W. A. Ritcher, 700 ft. from east line and 1,200 ft. from south line, Sec. 17, Blk. X, John Glynn Sur. . . . . Spudding.
Engleking Drlg. Co.'s No. 1 Mulligan, C Sec. 21, Blk. B, R. M. Thompson Sur. . . . . 200 ft. fluid in hole from 407-14 ft; run. tubing.

HALL COUNTY

Seifert et al's No. 1 Owens, C NE Sec. 179, Blk. S-5, Dennison & Pacific Sur. . . . . Spudded and S.D.

HOCKLEY COUNTY

El Capitan Oil Co.'s No. 1 Ellwood, SW cor. Sec. 55, Blk. A, R. M. Thompson Sur., 18 mi. NW Lubbock. . Drlg., 1,650 ft.

HARTLEY COUNTY

Deep Rock Oil Co.'s No. 1 Lymann & Balfour, Sec. 9, Blk. 2 . . . . . Show gas and rainbow of oil 560 ft; top lime, 2,810 ft., 24,000,000 ft. gas, 3,100-3,280 ft; drlg.

Eslick et al's No. 1 J. B. Irving, Sec. 13, Blk. 13 . . . . . Topped granite wash, 3,108 ft; show oil, 3,226 ft; drlg., 3,320 ft.
J. E. McKanna's No. 1 Frances Farwell, Sec. 30, Blk. 22. Run. 6-in. casing to 2,990 ft.
J. E. McKanna's No. 1 J. M. Shelton est., Sec. 29, Blk. 202 . . . . . S.D., 3,595 ft; cas. trouble; rig blown down; rebuilding rig

HEMPHILL COUNTY

Hoover et al's No. 1 Schaller est., Sec. 4 . . . . . Spudded and S.D.
Hoover et al's No. 1 fee, J. S. Hood Sur. . . . . Run. 5-in. casing to 4,555 ft.

HUTCHINSON COUNTY

Amarillo Oil Co.'s No. 1 Ida Ingerton . . . . . 70,000,000 ft. of gas 2,400 to 2,610 ft.; killing gas; S.D.

Anderson & Pritchard's No. 2 William Yake, SW cor. NW, Sec. 1, Blk. J, H. & G. N. Sur. half mile W of No. 1 . . . . . Rigged.
R. G. Barnum et al's No. 1 Garland Sanford, Sec. 78, Blk. 46 . . . . . Rig.
Beam et al's No. 1 Cockrell, Sec. 8, Blk. 23 . . . . . S.D., 405 ft. for orders.
Berryman Oil Co.'s No. 1 Sanford, Sec. 83, Blk. 46, H. & T. C. Sur. . . . . 80,000,000 ft. gas, 2,690-2,905 ft; show oil, 2,915 ft; show oil 3,030-39 ft; S.D., 3,060 ft.

Big Coach Oil Co.'s No. 1 Dunnaway, Sec. 5, Blk. Y . . . . S.D., 750 ft.
Conklin et al's No. 1 Johnson, Sec. 1, Blk. XO3, H. & O. B. Sur. . . . . S.D. 600 ft. for 12-in.
Great Plains Oil Co.'s No. 1 Bivins, Sec. 13, Blk. Y2.

"You can't stick me on any pressure control job"

Mason Liquid Level Controller with Rotary Type Balanced Valve

Positively maintains liquids at any predetermined level in stills, receivers, absorber towers, heaters, condensers, closed tanks, etc.

Sizes 6", 8", 10", operating valves from ½" to 1½", 2" to 5", 5" to 12" inclusive.

"I always look in my Mason Catalog. An' it doesn't take me long to pick out a regulator that's made-to-order for the job—one that's right and will stay that way."

The Mason Catalog No. 62 describes and illustrates Mason Regulators for every service. Ask for your copy.

Mason No. 266 Casinghead Gas Regulator

Maintains a constant pressure at the gas wells. It holds any given vacuum or back pressure on the casing head, permitting the excess to pass into the gathering lines. It is simple in construction, compact in design and accurate in regulation.

Sizes ½" to 6"

Mason Strainers

Designed for use on pipe lines to prevent sediment, scale, bits of packing or other foreign material from passing into the reducing valve or other regulator installed in the line.

Sizes ½" to 6"

Mason Regulators

MASON REGULATOR CO.
Boston, Mass.

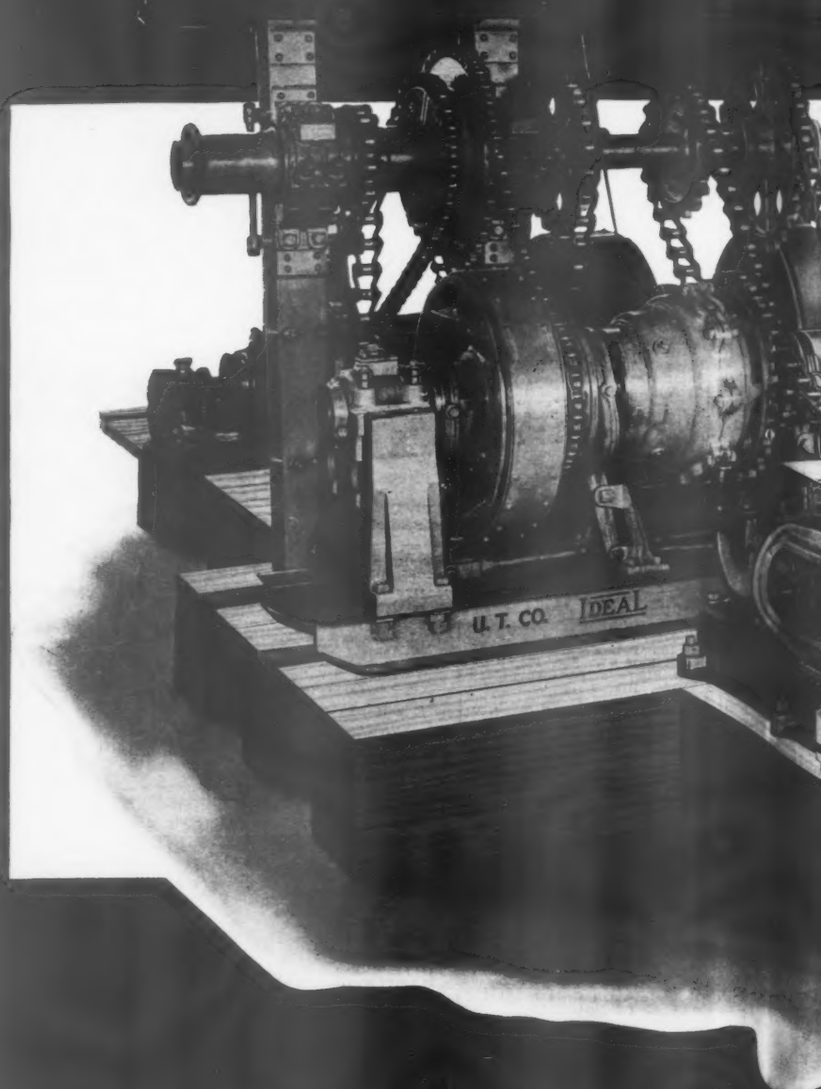
Muskogee, Oklahoma
Atlas Supply Company

Los Angeles, California
Warren & Bailey Company

Houston, Texas
J. A. Rossiter Company

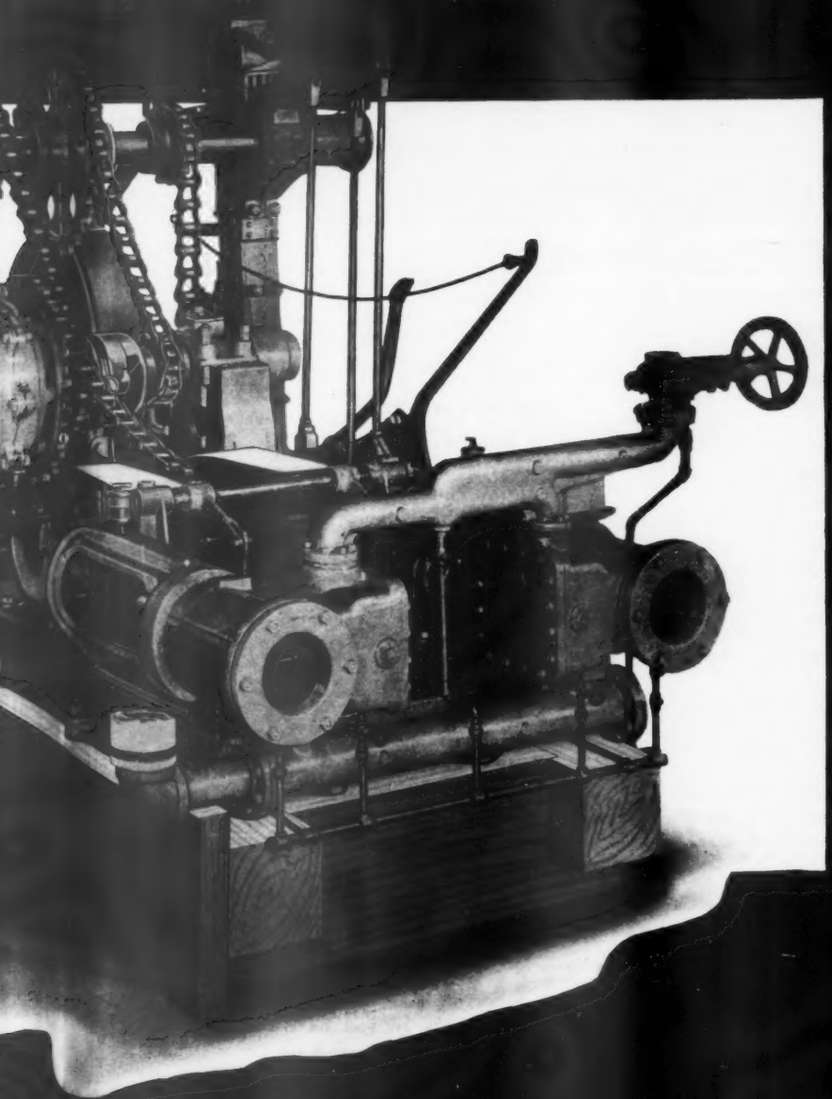
644

IDE
HALLIBURTON DRI



THE NATIONAL SU

EAL
RILLING CONTROL



UPPLY COMPANIES

IDECO

Oil Field Library

Because of the high standards of engineering that have made IDECO products internationally the accepted standard, this library is a valuable and essential guide to anyone interested in the production of oil.

IDECO
STEEL GALVANIZED DERRICKS RIGS AND EQUIPMENT
The International Derrick and Equipment Company
Columbus Ohio
INTERNATIONAL STANDARD STEEL IDECO BUILDINGS
INTERNATIONAL IDECO Wheels
THE INTERNATIONAL DERRICK AND EQUIPMENT COMPANY
IDECO CROWN BLOCKS
THE INTERNATIONAL DERRICK AND EQUIPMENT COMPANY

Kindly check on the coupon below the books you need to complete your set.

The International Derrick and Equipment Company
Columbus, Ohio

Please send me your—

Derrick Catalog ( ) Crown Block Catalog ( )
Building Catalog ( ) Wheel Catalog ( )

Name .....
Position .....
Company .....
Address .....

T. T. R. R. Sur. — 60,000,000 ft. gas, 2,540-60 ft; running 6-in. casing to 2,750 ft.
Great Plains Oil Co.'s No. 1 Kingsland, Sec. 4, Blk. Y — S.D., 2,345 ft.
Golden Eagle Oil Corp.'s No. 1 J. Q. Bost, Sec. 6, Blk. Y-2 — Derrick.
McMan O. & G. Co.'s No. 1 Albert Yake — Drlg., 1,100 ft.
Marland Oil Co.'s No. 1 Carver, Wm. Heath Sur. — S. D., 3,810-30 ft; 710 ft. water. P. B. to complete as a gas well around 3,260 ft.
Panfield Oil Co.'s No. 1 Luginbyhl Bros., Sec. 50, Blk. M-23 — S.D., 1,200 ft.
Pole Cat Oil Co.'s No. 1 W. B. Halle, Sec. 24, Blk. M-21 — Drlg., 2,579 ft.
Phillips Pet. Co.'s No. 1 Yake, Sec. 36, Blk. 46 — Topped pay, 2,820-50 ft; 1,800 ft. oil in hole; drilled to 2,856 ft., P. B. to 2,852 ft. swabbed 17 bbls; to shoot.
Phillips Pet. Co.'s No. 12 Elva-Whittenburg, E. Tomlinson Sur. — Drlg., 3,815 ft.
Prairie O. & G. Co.'s No. 1 J. M. Sanford, SW cor. N half Sec. 85, Blk. 46 — Killing gas, 2,600 ft.
Prairie O. & G. Co. and Vacuum Oil Co.'s No. 1 Cal Merchant — Drowning out 75,000,000 ft gas, 2,252-2,740 ft; drlg. by tools at 2,550 ft.
Skyrocket Oil Co.'s No. 1 Mrs. R. A. Jameson — Run, cas. by tools, 2,515 ft., running 8¼-in., 2,550 ft.
Sweeney et al's No. 1 Johnson, Sec. 28, Blk. Y — S.D., 1,780 ft.
U. S. Oil Corp.'s No. 1 Johnson, Sec. 35, Blk. Y — Drlg., 2,360 ft; making 40,000,000 ft. of gas, 2,140-2,250 ft.
Vitek Oil Co.'s No. 1 W. F. Allen, Jose Rodriguez Sur. — S.D., 180 ft.

KING COUNTY

Gibson & Johnson's No. 1 Burnett est. — Salt water, 2,525-50 ft; run. 8-in to 2,576 ft; drlg., 2,810 ft.
Midwest's No. 1 Patton — S.D., 2,512 ft.
J. L. Pattison's No. 1 Patton — S.D., 2,065 ft.
Phillips Petroleum's No. 1 — Drlg., 3,320 ft.
Sinclair — S.D., 2,940 ft.
White Eagle's No. 1 — Drlg., 2,755 ft.

LIPSCOMB COUNTY

Cal-Tex's No. 1 Bradford, C NE NE Sec. 899, Blk. 43, H. & T. C. Sur. — Spudded and S. D.
Camp Creek Oil Co.'s No. 1 Mrs. H. D. May, Sec. 612, Blk. 43 — S.D., 600 ft.
McCorkle's No. 1 A. Barton, NE cor. SW SE, Sec. 504, Blk. 43, H. & T. C. Sur. — Set 6-in. 3,811 ft; drlg., 3,907 ft.
Ozark Drlg. Co.'s No. 1 Frass, NE SE Sec. 106, Blk. 10, H. & T. C. Sur. — Rig on ground.
Smith, Kinsley & Ruby's No. 1 C. W. Jones, NE cor. SW, Sec. 100, Blk. 43 — Drlg., 3,410 ft.

MOORE COUNTY

Amarillo Oil Co.'s No. 2 Terry Thompson, Sec. 19, Blk. 44 — Making 34,000,000 ft. gas; lime, 3,425 ft; gas killed; S.D.
Douglas Oil Co.'s No. 1 H. M. Beauchamp, Sec. 112, Blk. 44 — 12,000,000 ft. gas, 3,425 ft; 6-in cas. set, 3,470 ft; drlg., 3,915 ft. in hard lime.
Marland Oil Co.'s No. 1 J. T. Sneed, Jr., Sec. 25, Blk. 1 — Half bailer water per hr., 3,152-3,202 ft; plug. back for gas.
Moore County Oil Co.'s No. 1 Sneed, Sec. 30, Blk. 6-T — 8,000,000 ft. gas, 2,700-12 ft; drlg., 2,750 ft.
Shadler Bros.' No. 1 John Lowery, Sec. 237, Blk. 44 — Cmt. 10-in. cas., 1,800 ft.
Skelly Oil Co.'s No. 1 Armstrong & Byrd — Drlg., 1,460 ft.
Prairie and Shamrock's No. 2 Gober, Sec. 16, Blk. M-21 — Drlg., 380 ft.

MOTLEY COUNTY

Chechako Oil Co.'s (J. W. Pennington et al of Amarillo) No. 1 J. W. Owens, NW cor. Sec. 26, Blk. 4 (15,000-acre solid block) — Drlg., 3,160 ft.
Exploration Co.'s No. 1 Burleson — Spudded.
Exploration Co.'s No. 1 Tillson — S.D., 750 ft. for repairs.
Exploration Co.'s No. 1 Matador Land & Cattle Co. Cen. SW, Sec. 37, John Gibson Sur. — Location.
Wheeler et al's No. 1 C. D. Bird, C NE Sec. 4, Blk. S, Stephens Sur. — Spudded and S. D.

OCHILTREE COUNTY

W. G. Burton's No. 1 Stickler, Sec. 579, Blk. 43 — Rerun, 5-in. cas. to 3,908 ft.
Hamilton et al's No. 1 R. E. Wamble, Sec. 144, Blk. 43 — S.D., 250 ft.
McCorkle Pipe Line Co.'s No. 1 R. H. Moore, Sec. 471, Blk. 43 — S.D., 1,600 ft.
McCorkle's No. 1 Weinett, Sec. 474, Blk. 43 — Fish. for bit, 560 ft.
Standard Dev. Co.'s No. 1 Bowden, Sec. 923, Blk. 43 — S.D., 900 ft.

OLDHAM COUNTY

Prairie O. & G. Co.'s No. 1 Landergin, SE cor. NE SW Sec. 46, League 310, Capital land — Drlg. up bailer, 3,720 ft.

PARMER COUNTY

Humble O. & R. Co.'s No. 1 Farwell; elev. 4,005 ft — Temp. abd., 3,600 ft.

POTTER COUNTY

Amarillo Oil Co.'s No. 1 Masteron, Sec. 69, Blk. O-18, D. & P. Sur. — Rigging up.
Amarillo Oil Co.'s No. 1-B Masterson, Sec. 43, Blk. G-M-3, G. & M. Sur. — Location.
Del Rio Oil Co.'s No. 1 River Bed, Sec. 106, Blk. 46, H. & T. C. Sur. — Rig.

ROBERTS COUNTY

Big Bend Oil Co.'s No. 1 Mrs. H. Ledrick & Sons, Sec. 7, Blk. 5-A — Show gas, 4,990 ft; show oil 4,992 ft; cas. set at 3,975 ft.
Dunbar's No. 1 H. A. Gill, Sec. 127, Blk. M-2 — Cellar; temporarily abd.
Murphy et al's No. 1 Gill, Sec. 31, Blk. M-2 — S.D., 650 ft.
Charles Page et al's No. 1 Hamilton, Tract 2, Clay County school land — S.D., 440 ft.
C. C. Wilson, No. 1 A. H. Tandy, NE cor. Sec. 182, Blk. 42, H. & T. C. Sur. — Spudded and S.D.

SHERMAN COUNTY

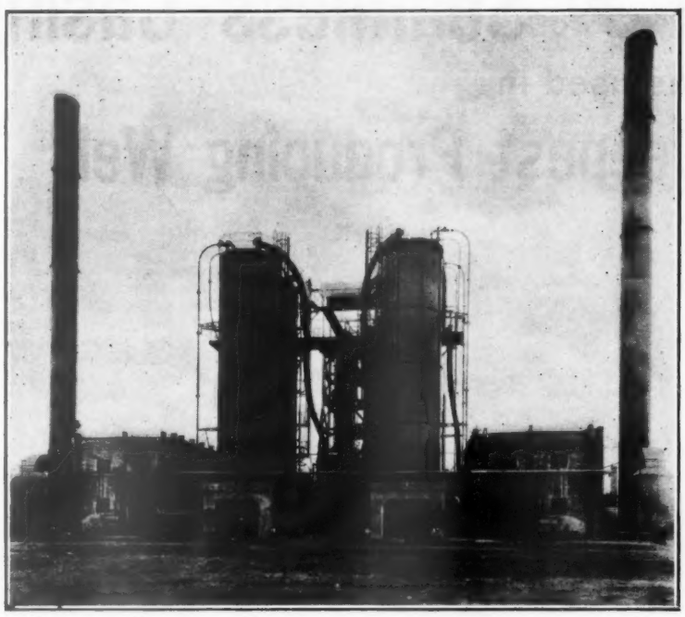
Gibson Oil Co.'s No. 1 Bivins, Sec. 35, Blk. 3-B — Fish., 1,385 ft.
Hagy & Harrington's No. 1 S. F. Flores, C SW Sec. 64, Blk. 3-T, T. & N. O. Sur. — Set 10-in., 1,100 ft.
Phillips Pet. Co.'s No. 1 Price & Fuqua, C NE, Sec. 33, Blk. 2-B, G. H. & H. Sur. — Drlg., 650 ft.
Whitehead et al's No. 1 Lee Bivins, C SW Sec. 36, Blk. 3, G. H. & H. Sur. — Location.

SWISHER COUNTY

Expltn. Co.'s No. 1 W. C. Denwiddie, Sec. 70, Blk. M-11, A. B. & M. Sur.; elev., 3,610 ft. — Location.
R. H. Miller's No. 1 Todd — Loc. temporarily abd.

WHEELER COUNTY

American Ref. Co.'s No. 1 E. E. Carlton, Sec. 29, Blk. 13 — 8,000,000 ft. gas; show oil, 2,027 ft; T.D., 2,255 ft; plugging back to shoot.
Angus et al's No. 1 G. A. Morgan, SW cor. SW NE Sec. 93, Blk. 17 — Making 24,000,000 ft. gas, 1,800-95 ft; S.D., 1,895 ft.
Angus et al's No. 1 Vermillion, SW cor. NW SW, Sec. 80, Blk. 17, H. & G. N. Sur. — Drlg., 1,100 ft.
Boyles & Johnson's No. 1 S. L. Lewis, Sec. 40, Blk. 24 — Fish. for bit, 2,400 ft.
Foster et al's No. 1 S. H. McDonald, SE cor. NW SW, J. N. Lindsay Sur. — Spudded and S.D.
Lyons et al's No. 1 Jackson, Sec. 11, Blk. 27, H. & G. N. Sur. — Rig on ground.
Marland Oil Co.'s No. 2 W. E. Bentley — Show gas, 3,205 ft; S.D. by agreement.
J. J. Rook's No. 1 M. Mertel, SE NE Sec. 4, Blk. 24, H. & G. N. Sur. — Making 40,000,000 ft. gas; fish., 1,985 ft.
J. J. Rook Co.'s No. 1 T. C. Jones, Sec. 1, Blk. 24 — Fish. casing, 1,300 ft.
J. J. Rook's No. 1 C. W. Porter, SW cor. NW Sec. 41, Blk. 24 — S.D., 2,300 ft. by agreement.
Wheeler O. & G. Co.'s No. 1 P. J. Sorenson, Sec. 53, Blk. A-4 — Spudded and S.D.
Smith Brady et al's No. 1 P. J. Sorenson, Sec. 53, Blk. 4-A — S.D., 2,112 ft, for orders, preparing to resume drilling.
E. L. Woodley, Jr.'s No. 1 Woodley, Sr., Sec. 12, Blk. 5-A — Show oil, 2,327 ft; S.D. 2,349 ft
Watchorn O. & G. Co.'s No. 1 F. E. Shelton, C NE NE Sec. 33, Blk. 24 — Gas at 2,007 ft; 200,000,000 ft. mudded off S.D., 2,075 ft. for pipe.
The Texas Company's No. 1 Bell, Sec. 71, Blk. 13, H. & G. N. Sur. — Drlg., 1,410 ft.
The Texas Company's No. 1 B. P. Sewell — 47,000,000 ft. gas, 1,855 ft; caught fire, rebuilding rig.
Tidal Oil Co.'s No. 1 W. E. Bentley — Making 245 bbls. from granite wash, 2,299-2,330 ft.



PRESSURE STILLS

installed in conjunction with an extensive construction program which we have recently completed for an Ohio refiner.

Drawings for the above stills were supplied us by the owner. The units were furnished and erected by us and included in our general contract with other equipment which we designed, furnished and erected complete,—this being significant in that it demonstrates the flexibility of the service which we offer to refiners.

Regardless of the manner in which your improvements are to be provided, we are confident that we can effect appreciable savings in any phase of the program, and will be glad to quote upon:—

Complete installations, including design, furnishing of equipment, and erection of same.

Design and engineering service only.

The fabrication and furnishing of equipment or material from our own designs or those of others.

Erection of equipment or material of any design or manufacture.

ASSOCIATES

CONTRACTING ENGINEERS

The WIDDELL ENGINEERING CO.

CONSULTING ENGINEERS

ARTHUR G. McKEE & CO.

ENGINEERS & CONTRACTORS

2422 EUCLID AVE CLEVELAND, OHIO

Pipe Stills	Fractionating Towers	Economizers and Heat Exchangers
Shell Stills	Treating Plants	Filter Houses
Wax Plants	Boiler and Power Plants	Piping and Equipment Installations

STANDARD Seamless Casing

was used in

Mid-Continent's Deepest Producing Well

McCully No. 1—SW of NE of SE of 30-19N-4W, Logan County, Oklahoma
Spudded In—July 26, 1926.
Drilled into 3,000 barrel production June 29, 1927.

* * * * * *

Cased with three strings of STANDARD SEAMLESS TUBE COMPANY'S high carbon seamless casing:

4,355′	8 1/4″	32-lb.
5,035′	6 5/8″	24-lb.
5,764′	5 3/16″	20-lb.

Total depth of well now about 6,000 feet.

* * * * * *

The 6⅝″ string was first seated at 4490′ and then underreamed to final depth (5,035′).
The 5 3/16″ string was first seated at 5635′ and underreamed to 5,764′.
Obviously these two strings had to be raised and lowered a number of times, which is a real test of joint strength.

STANDARD Seamless Tube Company

313 Sixth Avenue,
PITTSBURGH, PENNA.

Branch Offices:

W. H. WIEWEL
295 Broadway, New York

F. A. WORTHEY
912 Van Nuys Bldg., Los Angeles, California

F. HOVING
Houston Club, Houston, Texas

H. G. TEXTER
710 Mid-Continent Bldg., Tulsa, Okla.

SALT DOME THEORY BIG FACTOR IN UTAH

(Continued from Page 33)

the salt encountered below the Hermosa limestone occurs in its normal position and that it has been gently folded together with overlying and underlying formations, or that only very slight salt flowage had taken place. Others believed that formations below the salt would be found in their normal position undisturbed by folding, and the hole was carried to 5,200 feet to test these theories.

In the meantime there had arisen a discussion, chiefly led by T. A. Harrison, and Mr. Prommel, to the effect that the structures along the Colorado River were salt domes and that the oil would not be found in wells drilled on the tops, but in flank tests. Mr. Prommel expressed the opinion that considerable flowage of salt has taken place; that the age of the salt is yet undetermined and may be Mississippian or even Devonian; and that folding and flowage of salt has taken place during the various geological periods so that a true section is not present and near the tops of apices of the anticlines.

While these discussions were taking place, other wells were started. No. 1 J. H. Shaffer, on Section 17-27-20, Shafer Dome, 5 miles south of the Cane Creek Dome, was drilled by the Midwest Exploration Co. for the Wyoming Associated and Utah Southern Oil Companies. It, also, was located on the apex of the dome and was drilled with cable tools. It was drilled to 5,862 feet where water was encountered in a sandy lime, and abandoned after having gone through the thick beds of salt similar to those found on Cane Creek. It, also, had showings of oil and gas in thin strata of shale and sandy lime.

Empire Gas & Fuel Co. started its No. 1 Kimball on Section 6-20-21, Gibson Dome, the lowest of the series of structures and just south of the Indian Creek Dome. It encountered the same salt conditions, was drilled with cable tools, and had a good showing of oil and gas at 3,575 feet. It was abandoned in salt at 4,100 feet.

Test Salt Dome Theory

Another test was drilled by the Midwest for Snowden & McSweeney on Section 5-27-21, Cane Creek Dome, on the Prommel permit. This well was located 2 miles east of No. 1 Frank Shaffer, the first well drilled in the region and the discovery well on Cane Creek. It was abandoned this week in salt at 3,520 feet, or about 1,000 feet below the horizon in which the first oil in the Frank Shaffer well was found. It was cased with 10-inch pipe and could have been carried deeper, but the owners and operators agreed that nothing was to be gained by such a course.

The Snowden & McSweeney and Midwest interests were satisfied that this well was sufficiently low on the structure to test out the salt dome theory and since it found conditions similar to those in the other well, and no commercial horizons, they decided to quit. Some of those favoring the salt dome theory, especially Mr. Prommel, did not agree that the well was located far enough down on the flank to make it a satisfactory test.

In the meantime the General Petroleum Corp. started a test on the Colorado side of the boundary in Montrose County, on the N half SE, Section 6-47-19, using a rotary drill which took cores of the formation. All the other tests had been drilled with cable tools. The General Petroleum well (No. 2 Wilcox), was located about three-quarters of a mile from the crest of the Paradox anticline. The cores taken from the well show that the salt has been subjected to considerable flowage, some of the strata being almost perpendicular. The cores were brought to Denver by Mr. Prommel and used with considerable effect in upholding the contentions of those favoring the salt dome theory and the importance of flank wells being drilled on the anticlines in southeastern Utah and southwestern Colorado before they can be considered proven or disproven with respect to the accumulation of oil and gas in comercial quantities. This well starts in anhydrite at the surface and now is drilling below 4,400 feet. The sample cores were taken at intervals between 3,734 and 4,020 feet.

The outcome of these developments is that the Midwest interests have decided to quit exploring in that region. They will retain their acreage and permits and await further developments. The Utah Southern Oil Co., on the other hand, is fully converted to the salt dome theory and is negotiating with other interests to continue the exploration. While this company probably will part with the Midwest in further development in that region, it is understood that it has assurances of co-operation in other directions. It is at present drilling some Utah tests in conjunction with General Petroleum.

The big item in further testing is the expense of moving equipment into the district. Since there are large quantities of drilling equipment and supplies already in the field, it is likely that some deal for the use of this will be made with the Midwest.

Farther south in the southeastern corner of Utah are some other important tests under way. These include the Elkridge, Boundary Butte, Cedar Ridge, and East Domes. These structures are not affected by the conditions found on the Colorado River Domes, but are normal structures similar to those found in other parts of the Rocky Mountain territory. One of these, Elkridge, is very large, having more than 80,000 acres, and a number of the larger companies are jointly interested in the exploratory well which now is reaching an interesting depth. Half a dozen, or more, wells started in the Colorado River district are idle awaiting the next move.

JOHN ROSS POLLEY DIES

CHATHAM, Ontario, July 9.—John Ross Polley, a prominent member of the International Petroleum Co. organization at Toronto, died very suddenly, at his home at 189 Inglewood Drive, Toronto. Mr. Polley's career in the oil industry began more than 30 years ago when he joined the staff of the old Imperial Oil Co. at Petrolia. He was later transferred to Sarnia, and in 1913 joined the International Petroleum Co. as chief accountant. He spent three years in Peru, contributing materially to the establishment of the industry there. At the time of his death he was assistant secretary-treasurer.

AUSTRALIAN OIL SEARCH

The South Australian Oil Wells, Ltd., have had tests carried out at the mouth of the Glenelg River, on the border of south Australia and Victoria, from which it is now reported that there is an anticlinal formation passing through the leases of the company, that suitable cover and storage beds exist and that a true seepage of oil exists in the River Gorge, the showing at about 1,000 feet being very promising. Report made from an investigation last year stated that the only area along the southern coast of Australia which warranted attention so far as oil prospecting was concerned, was near the Glenelg River.

FRENCH OIL IMPORTS

WASHINGTON, D. C., July 11.—French imports of petroleum and petroleum products amounted to 2,068,000 tons valued at 3,081,000,000 francs in 1926, an increase of almost 100,000 tons over the 1,976,182 tons imported in 1925, says a report to the Department of Commerce from Assistant Commercial Attache Daniel J. Reagan, Paris. Imports from the United States were slightly higher in 1926 than in 1925 but there was a slight regression in the percentage of the total, as they came to 66.7 per cent of the whole importation in 1926 compared with 68.2 per cent in 1925. Less petroleum was imported also from Great Britain, Egypt and Dutch possessions in America.

It's all Lubricator

McCord Force Feed Lubricators

Standard of the Oil Fields

There are no frills in a McCord lubricator. Built for oil field use McCord lubricators are made extra strong to stand up under hard service.

McCord lubricators are built like a high grade automobile with all parts of drop forged steel. Numerous inspections in the course of manufacture along with a rigid final inspection insure long and satisfactory service.

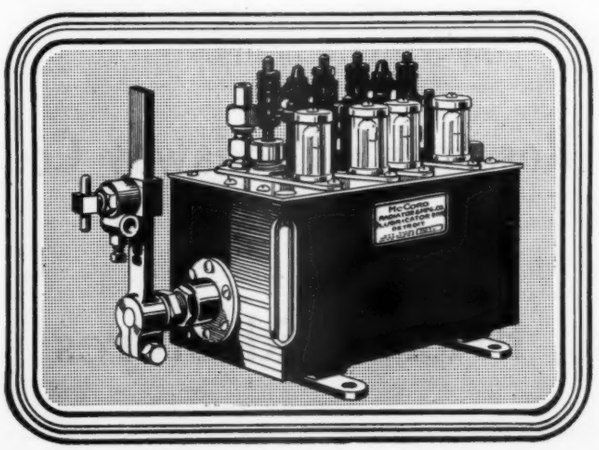
Any pump unit can be removed for inspection or cleaning without disturbing any other unit and the only tool needed is a screw driver.

Is it any wonder no McCord lubricator has ever been known to wear out? That lubricators purchased ten and twelve years ago are still on the job.

Specify McCord lubricators "Standard of the oil fields" on your next engine pump or compressor.

Ask your National Supply salesman for further details.

McCORD RADIATOR & MFG. CO.
Lubricator Division
DETROIT, MICH.



A change in name only

Rossendale-Reddaway Co.,

Formerly the

Rossendale-Reddaway Belting & Hose Co.

Established 1890

THIS long established firm, the originator and sole manufacturer of "Camel Hair" Belting in the United States, has recently been reorganized so that today under its new name and with materially strengthened manufacturing and financial structure, it enters upon a new era of progressive growth.

The same efficient personnel and the same soundness and sincerity which you have come to associate with the manufacturers of "Camel Hair" Belting through many years of friendly contact are now available to better serve your requirements.

Rossendale-Reddaway Co.,

Newark, N. J.

Distributed through all

Frick-Reid Stores

SOUTHWEST WILDCATS

(Continued from Page 49)

Survey 712, located 450 feet to NW cor., has been spudded in. Tubbs & Wright's No. 1 Reiser, Survey 1,617, Block 14, is drilling. W. O. Wheatley's No. 3 Kruger, Survey 1,570, Block 4, is location 640 feet to north line and 421 feet to east line.

Zapata County

Buffalo-Erie's No. 1 Burtrand, Survey 627, is location 3,239 feet to northeast lines and 500 feet to northwest lines. E. K. Bateman's No. 2 Vela, Block 4, located 675 feet to northwest lines and 417 feet to northeast lines, is drilling at 1,700 feet. Roxana Petroleum Corp.'s No. 1 E. Lopez, Survey 288, located 150 feet to northwest and northeast lines, is on sand at 1,946 feet and preparing to set 6-inch. J. H. Winch's No. 2 Bustamante, Block 2, Share 11, located 2,400 feet west of No. 1, is drilling at 680 feet.

Bexar County

Allen Burnam's No. 1 Ward, located southwest of Martinez and 600 feet to north line and 2,400 feet to west line of tract, is ready to spud in. A. R. Beal, trustee,'s, No. 1-A Ackerman, Survey 133½, is drilling in gumbo at 664 feet.

Bee County

Red Ant Oil & Gas Co.'s No. 1 Perrty & Chestnut, 7 miles west of Pettus, is drilling. D. Hewitt's No. 1 G. A. Ray, located 1½ miles west of Pettus, is drilling at 1,100 feet. Nichols & White's No. 1 Hicks, Block 19, NW cor., is shut down at 1,408 feet.

Blanco County

Miller Creek Leasing Corp.'s No. 1 Glasscock, Survey 50, located 150 feet to CEL of survey, is location, with elevation 1,440 feet.

Caldwell County

The Texas Company's No. 1 Beatty, N. Kelly Survey, 500 feet to southeast lines and 150 feet to southwest lines, is rigged up ready to spud and has been delayed by the wet weather. Sutton & Smith's No. 2 Carter, G. Hinde Survey, 300 feet east of No. 1, is location; No. 1 J. L. New, James Hindes Survey, 150 feet to west line and 600 feet to south line, has derrick up; No. 1 Carter, G. Hinde Survey, 150 feet CWL, is swabbing at 2,597 feet and getting water and little oil. Kuhn & Armstrong's No. 1 Thomas is swabbing about 5 bbls. of oil daily. Calco Petroleum Co.'s No. 1 Thomas, located 600 feet SE of Kuhn & Armstrong's No. 1, is drilling at 400 feet. Detex Oil Co.'s No. 1 Hardeman, located 4 miles north of Luling, claims to be in the base of the Edwards at 2,984 feet and showing oil. Ritchie-Joe Bruner's No. 1 Davis is pumping about 12 bbls. of oil of 35 gravity from 2,557 feet; test may be drilled deeper.

DeWitt County

Collette Oil Co.'s No. 1 Boldt, James Lasater Survey, 3,129 feet to south line and 800 feet to south line, is rigged up ready to spud in. G. O. Williams and O. L. Gates' No. 1 Oscar Gohmert, G. W. Brooks League, 175 feet to north line and 300 feet to east line, is standing at 100 feet waiting on titles. Empire Southern Oil Co.'s No. 2 Smith, Survey 3, located three-quarters of a mile west of No. 1, is drilling in hard rock at 1,650 feet. McNeil & Matthews' No. 1 Kaiser, A. Dillard Survey, 1,508 feet to NW cor., is shut down at 2,600 feet. Yoro Development Co.'s No. 1 Tully, located 1 mile from the No. 1 Tom Burns, has been spudded in and shut down.

Dimmitt County

Humble Oil & Refining Co.'s No. 1 City National Bank, Survey 654, located 700 feet to north line and 2,000 feet to east line, is in sandy shale at 2,892 feet.

Frio County

P. A. Neilan's No. 1 Blackaller, James Gouley Survey, is skidding derrick over from No. 1 abandoned at 3,005 feet with bad fishing job.

Fayette County

Magnolia Petroleum Co.'s No. 1 Fordtran, J. R. Jones Survey, 200 feet to northeast lines and 1,050 feet to west lines, is ready to spud in. LaFayette Oil Co.'s No. 1 Marquardt, J. R. Phillips Survey, 976 feet to northwest lines and 400 feet to southwest lines, is drilling.

Goliad County

Houston Oil Co.'s No. 1 J. F. Lott, G. Cortinas Survey, 2,000 feet to north line and 300 feet to west line, is rigging up.

Gonzales County

The Texas Company's No. 1 Plowman, Byrd Lockhart Survey, 631 feet to southeast lines and 3,562 feet to northeast lines, is drilling at 175 feet. Gonza Petroleum Co.'s No. 1 Elder is preparing to test at 1,636 feet; No. 2 Elder, Block 11, located southwest of No. 1, is drilling at 1,250 feet; No. 1 Sinclair, 4 miles northeast of No. 2 Elder, is drilling at 1,200 feet. Bristol Oil & Gas Co.'s No. 2 Denma, A. Zumwalt Survey, is shut down at 807 feet. Martin Oil & Development Co.'s No. 1 Preston, near Cheapside, is to run casing at 1,570 feet. Joe Bruner's No. 1 Vaughan, Kent Survey, 200 feet to west line and 300 feet to south line, is shut down at 1,406 feet.

Guadalupe County

H. H. Temple's No. 1 McAllister, Edward Kellett Survey, 450 feet to northeast lines and 1,420 feet to northwest lines, is drilling at 1,907 feet in chalk topped at 1,757 feet. F. A. Lain's No. 1 Weinert, W. K. Estell Survey, 150 feet to CNL, is standing at 3,002 feet, having finished contract depth, but may be drilled deeper.

Hays County

J. E. Rodgers' No. 1 Hohenburg, 2½ miles east of San Marcos, is drilling at 1,350 feet in the base of the Glenrose, with slight oil showing at 1,120 feet.

Karnes County

Earl B. Reynolds' No. 2 Butler, Block 43, Reynolds plat, 1,000 feet south of No. 1, went back into old hole at 1,947 feet which had filled with water 1,600 feet in 60 days and bailed down, gas increased a little.

Kerr County

Walker-Van Duyn's No. 1 Leigh, Survey 38, located 500 feet north of river and 150 feet south of railroad, is drilling at 2,405 feet in white sandy lime.

Kinney County

W. A. Stephens and others' No. 1 Jim Clamp, Survey 346, located 5,362 feet to west line and 5,674 feet to south line, is drilling at 1,000 feet. Havelin Oil Co.'s No. 1 Weatherby, Section 21, Block 5, is shut down at 4,330 feet for repairs on the engine.

Lavaca County

M. L. Benedum has made location for deep test near Ezzell, due south of Hallettsville.

Lee County

Bowers and others' No. 1 Brenbaum, 2 miles east of Monheim, has been abandoned at 1,820 feet. M. O. Ricketts and others' No. 1 Sanders, Joseph Maximillian League, 250 feet to SE cor., is standing at 800 feet.

Live Oak County

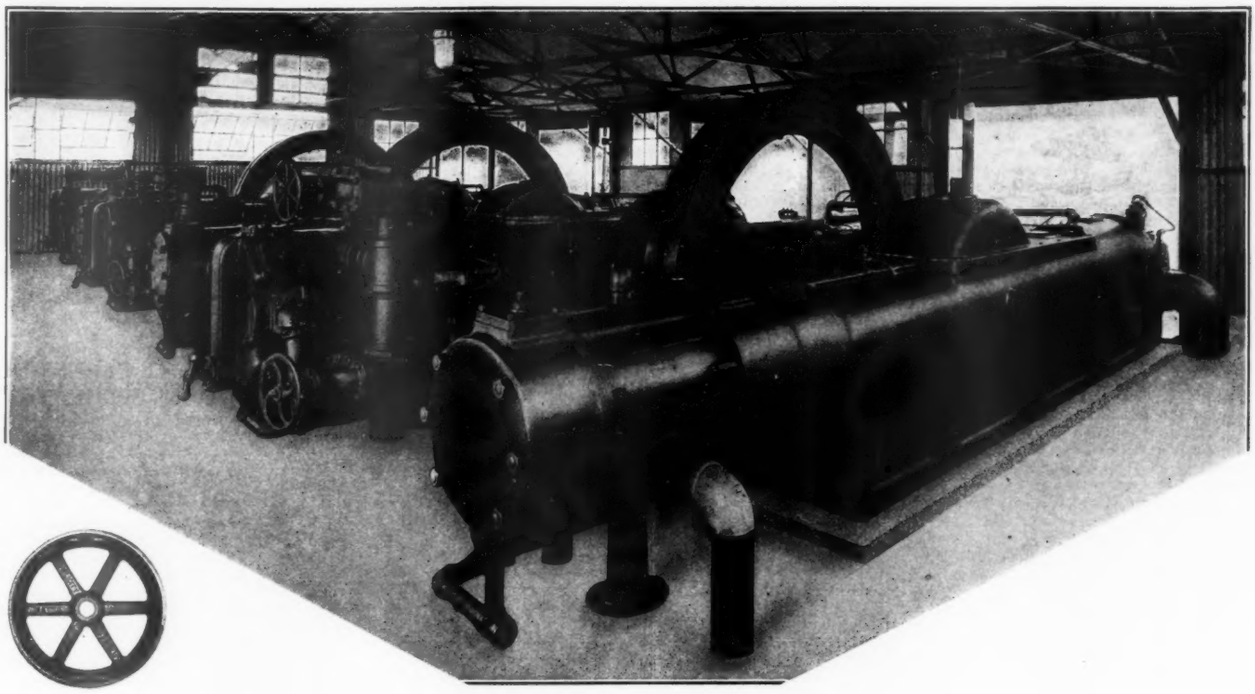
Houston Oil Co.'s No. 18 Cartwright Colchado Survey, 2,404 feet northeast of No. 5, has been spudded in. Delta Oil Co.'s No. 1 McNeil, Jane Curry Survey, 4,000 feet to NE cor., is shut down at 530 feet. R. P. Lightfoot's No. 1 Thomas, northwest of Coquat wells, is shut down at 960 feet. Simmons Oil Co.'s No. 4 Sartain, Simms tract, western edge of county, is drilling at 1,720 feet. J. W. Walton's No. 1 Roberts, west of Three Rivers, is resetting packer at 1,838-40 feet to test oil showing.

Medina County

C. W. Simpson's No. 1 Blocker, Survey 20, located 150 feet to north line and 305 feet to west line, is resetting and cementing casing at 1,240-49 feet to make another test. R. P. O'Brien's No. 1 Nixon, Survey 531, is standing at 1,007 feet waiting for pump. Medina Oil Co.'s No. 1 Taylor, Survey 135, is shut down at 1,000 feet. Johnson's No. 1 Mumme, Survey 100, is standing at 1,100 feet. J. A. Swayze's No. 1 Oeffingers, Survey 129, Block 22, is shut down at 300 feet. Cecil Switzers No. 1 Zerr, Survey 459, is drilling around 3,300 feet. California-Medina's No. 1 Rothe, drilling at approximately 3,300 feet.

Maverick County

Ryan Consolidated Petroleum Co.'s No. 1 Indio, Survey 14, center, is having casing trouble at 1,320 feet. Johnstone & Hout's No. 1 Whipff, 9 miles from Eagle Pass, is shut down at 1,220 feet.



Force the Issue EARLY

BEWARE the showdown after you buy. Force the issue early. The proper time to get the facts about oil field equipment is before the order is signed—not after the installation is in. It is too costly to learn too late.

With this fact in mind, we invite you to look into the merits of Watts-Miller Gas Engine and Compressor equipment, and make any comparisons you care to make.

Check up on the ability of Watts-Miller units to stand up—deliver efficient, uninterrupted service under all field conditions. Pay close attention to the capacity promised in contracts and go deep enough into the subject to find out whether a Watts-Miller unit ever fell short when the check up came. Do this and you will find no single instance where a Watts-Miller Unit has failed to deliver every pound of capacity the contract called for with something to spare.

Having the right to uninterrupted service on the job, and equipment able to deliver the full capacity expected, we again urge you to get the facts before you deal—not afterwards.

The Miller Improved Gas Engine Co.

Tulsa, Okla., Office
323 No. Cheyenne Ave.

Springfield, Ohio

Los Angeles Office
807 San Fernando Bldg.

WATTS GAS ENGINES AND COMPRESSORS **MILLER**

Ryeade Oil Co.'s No. 1 Chittim, Block 7, Section 129, is fishing at 5,592 feet; No. 2 Sullivan is drilling at 3,990 feet.

Milam County

Wills Oil Co.'s No. 1 Akes, drilled in, showed a very little oil and is being drilled deeper. W. A. Jones' No. 1 Casparis, located on Kate Casparis 100-acre lease, 960 feet southeast of No. 1 Smith, has derrick going up; No. 1 Smith, Chambers Survey, 150 feet to northeast lines and 810 feet to southeast lines, 3 miles northeast of Rockdale, has green sand at 1,143-1,215 feet and is setting casing. Coffield & Hale-Murphy's No. 1 Stephens, 1½ miles south of production, has derrick up. Groneman Brothers' No. 1 Key, New Salem district, 4 miles southeast of Rockdale, has a sand at 1,975 feet and is coring at 2,050 feet. Glass Brothers and associates' No. 1 in the vicinity of Hicks, is rigging up. Yegua Oil Co.'s No. 1 Richards, J. H. Smith Survey, 6 miles southwest of Rockdale, is drilling in shell, sand and gumbo at 1,500 feet. Milchalk & Clark's No. 1 Johnson, J. J. Acosta Survey, 450 feet to NE cor., and 4½ miles north of Thorndale, is drilling at 900 feet.

McMullen County

E. R. Marts' No. 8 Poitevent, Survey 56, is location 1,250 feet to south line and 150 feet to southwest lines. C. H. Atherton is making location for No. 1 Lark. R. L. Taylor's No. 2 Shiner, Survey 14, located 150 feet to SW cor., had derrick blown down and is rebuilding it. Nelson & Woods' No. 1 Shiner, Survey 48, Block 74, located 1,000 varas to east line and 350 varas to south line, is shut down at 900 feet. George Pickett's No. 1 Jacob, Survey 7, located 660 feet to CNL, is standing at 3,030 feet, having completed contract, in what is supposed to be the Cook Mountain and will drill deeper.

San Patricio County

J. M. Davis' No. 1 Welhausen & Driscoll, Lot 8, Section 68, is location with active drilling to start within 30 days. Huber & Crawford's No. 1 Mathis, Delgavo Survey, Block 17, located 300 feet to northwest lines and 2,500 feet to southwest lines, is shut down at 2,516 feet. John Sigmund's No. 7 McCampbell is cleaning out, total depth 4,012 feet. George E. Smith is moving in machinery at White Point for test.

Val Verde County

Magnolia Petroleum Co.'s No. 1 Whitehead, Survey 81, located 50 miles north of Del Rio, is shut down at 610 feet. Douglas Oil Co.'s No. 1 Sellers, Section 82, Block A, had rig burned down, total depth 2,940 feet. Hiawatha Oil Co.s No. 1 Sellers, Section 1,031, is straightreaming at 1,900 feet, total depth 2,600 feet. Crusoe-Williams' No. 1 Holman, Section 5, Block N, is drilling at 2,930 feet. O. O. Owens and others' No. 1 Henry Mills, Section 145, Block 1, total depth 2,521 feet, is making 4,000,000 feet of gas. Independent Operator's No. 1 Whitehead, Section 30, Block 4, is shut down at 3,000 feet in lime. East Del Rio Oil Co.'s No. 1 Russell, Section 183, is drilling at 3,182 feet.

Wilson County

Thomas and others' No. 1 Haese, Survey 124, located 300 feet to NE cor., is repairing slips, at 1,210 feet.

Williamson County

Fritz Fuchs and Rummel Brothers' No. 1 Rummell estate, P. Cartwright Survey, 1,100 feet to north line and 1,200 feet to west line, has been spudded in.

Zavala County

B. F. Thompson's No. 1 West, northern part of county, is ready to spud in. J. G. Pundt's No. 1 West, Fuenter Survey, east of Uvalde, NW cor. of lease, is shut down at 210 feet to pull casing set at 80 feet and reset it at 210 feet.

ROCKY MOUNTAIN AREA

(Continued from Page 53)

In the Salt Creek Field, the Midwest Refining Co. completed eight new producers, three in the Wall Creek sands and five in the Lakota.

The Wyoming Associated Oil Co. found a gusher that made 2,381 bbls. at 2,500 feet in the Lakota sand on Section 26-40-79. Another well of this firm on Section 23-40-79 was completed at 2,467 feet with a production of 320 bbls. and one on Section 24-40-79 will make a 20-bbl. pumper at 1,138 feet.

The Midwest Oil Co. completed a Lakota sand well at 2,503 feet on Section 23-40-70 that is a small producer for that sand, making only 26 bbls.

The Wyoming Oil Field Co. brought in three producers the past week. On Section 25-40-79 this company has a producer at 2,503 feet that will do 26 bbls. and on Section 23-40-79 at 2,464 feet a producer that started off at 644 bbls. Also on this same section the company has a pumper at 2,495 feet, making 32 bbls.

The Mountain & Gulf Oil Co. brought in a producer on Section 12-40-79 that made 53 bbls. in the second Wall Creek sand at 2,570 feet.

In Sweetwater County, Wyoming, considerable activity is noticeable around Rock Springs, and due to the drilling on the Hiawatha Dome. The Boars Tusk Oil Co., Jack Johnson, manager, is starting a diamond drill hole in Section 16-23-104, and this company plans to make the test by coring with the diamond drill and then drilling a standard hole in case the core shows oil or gas. This location is north and west of Rock Springs. The shipments of oil equipment into Rock Springs totaled 15 cars within the past two weeks, the material being consigned either to the Boars Tusk Oil Co. or to firms operating on the Hiawatha Dome on the Colorado and Wyoming state line.

Want to Abandon Line

The Illinois Pipe Line Co. has filed a petition with the Public Service Commission at Cheyenne to abandon the 30-mile pipe line of 3 and 4-inch pipe from the Pilot Butte Field in Fremont County to Riverton.

The Pilot Butte Field has a production of about 50 bbls. per day at present, this production coming from a shale fault at about 900 feet deep and the crude is a high grade oil that ranks with Salt Creek and other light oil fields. The field is owned and operated by the Argo Oil Co., a Midwest affiliated company.

The Illinois Pipe Line Co. pays a pumper for this line about $250 per month; the company receives 10 cents per barrel for pumping the oil. At the field end, the pumper fires up and pumps the oil through the line to Riverton, then he gets into a car and drives the 30 miles to Riverton, where he loads the tank cars on the railroad with the oil and then returns to the field.

The cost of keeping a man at Pilot Butte and the added cost of his automobile and other incidentals of the operation and management of this pipe line brings the cost to the pipe line company above the revenue derived from pumping the oil through the line, and since last November the Illinois Pipe Line Co. has shut down the line and the Argo Oil Co. has been pumping its production into storage. The Argo now has about 15,000 bbls. in storage in the field.

The situation is similar to the situation in the Lost Soldier a few years ago. There the Illinois Pipe Line Co. did not have enough oil to pay to operate the line, so it was abandoned. An attempt to salvage the line was found to be too costly, and the salvaged line would be worth less than the actual expense of digging it up and hauling it to the railroad.

New Lines Finished

The Illinois Pipe Line Co. has nearly completed the line from the Oregon Basin to Cody for the delivery of the crude from Oregon Basin to the railroad. This line is the second laid by this firm from the Oregon Basin to Cody, the first being an 8-inch gas line that is serving Cody with gas. The new oil line is 15.5 miles long.

The new gas line from the Buffalo Basin Field to Basin and intermediate points is now finished and the gas has been turned in. The line is 72 miles long and assures the Greybull refineries a good supply of fuel gas.

The Moffat County fields in Colorado are to have some new pipe lines this summer, according to the reports. The Midwest Refining Co. is to lay a pipe line from the new well on the Iles Dome, Moffat County, to Craig. The Texas Company has the old Prairie Pipe Line Co.'s line from the Moffat to Craig, but this is a 4-inch, and The Texas Company considered turning it into a gas line by extending it to the Marland wells and then laying another line for shipping oil. With such a gas line The Texas Company would make a saving in the field by using gas to operate with, and at the Craig refinery the use of natural gas would let a large amount of fuel oil go to the sales department instead of being burned under the stills.

Another proposed pipe line is one from Craig to the Tow Creek Field. This would be laid by The Texas Company and would probably be a 6-inch line about 30 miles long.

Build Transmission Line

The proposed transmission line in the Big Horn Basin that will carry electric power from the government dam at Shoshone, above Cody, is to have its first unit built at once according to advices from Cody. This unit will bring the power as far as Grass Creek and the estimated saving over fuel oil or coal for a deep drilling well is $5,000 per well. This power is being generated at the Shoshone dam built by the Government in the Shoshone River canyon above Cody, and the builders of the transmission line will purchase current from the Government.

The proposed gas line from Amarillo to Denver is now being examined into as to costs by the experts of the city of Denver. According to the figures furnished by the Prairie Oil & Gas Co. and the Cities Service interests the total cost of this line will be $22,700,000, this figure including a compressor plant in the field and the gathering lines, the cost of the leases and the trunk line itself of 350 miles in length.

Repairs to the Parco refinery of the Producers & Refiners are well under way, and the last of the foundation work for the new cracking plant was completed the past week. This completes the concrete work, except the brick laying and concrete repair work on the big concrete chimney. The bricklayers are now lining the big stack with fire brick and should complete the job within a week or 10 days more.

A large and beautiful fountain with an appropriate bronze plate and inscription was unveiled in Parco last week to Frank G. Kistler, the founder of the Producers & Refiners Corp. and also of the town of Parco. Mr. Kistler only recently resigned from the directorate of the Producers & Refiners Corp. and is now head of the Frank G. Kistler Co., a new firm which is drilling a number of shallow wells in Carbon County, Wyoming, to determine the undersurface geology of that portion of the field.

RUNS FOR THE WEEK

Salt Creek	39,800
Teapot	450
Big Muddy	2,570
Grass Creek	2,760
Elk Basin	880
Greybull	20
Rock River	2,800
Rex Lake	60
Dutton Creek	105
Notches	144
Lance Creek	590
LaBarge	310
Poison Spider	1,180
Osage	340
Hamilton Dome	1,320
Mule Creek	980
Lander	210
Byron	80
Lost Soldier	2,926
Ferris	60
Simpson Ridge	10
Cat Creek	2,220
Lake Basin	140
Sunburst	13,000
Iles Dome	694
Moffat	1,536
Walden	185
Florence	1,150
Tow Creek	1,020
Fort Collins	3,535
Boulder	25
Rangeley	100
Hogback	750
Rattlesnake	544
Table Mesa	0
Artesia	1,700
Total	84,194

FIELD RUNS FOR JUNE

Wyoming

Salt Creek	1,285,530
Teapot	26,390
Big Muddy	52,380
Grass Creek	78,280
Elk Basin	27,230
Greybull	510
Rock River	83,320
Dutton Creek	1,390
Rex Lake	3,200
Lance Creek	17,770
La Barge	4,800
Poison Spider	26,410
Osage	10,740
Hamilton Dome	42,360
Mule Creek	33,430
Lander	2,480
Notches	820
Byron	2,400
Lost Soldier	86,160
Ferris	1,080
Simpson Ridge	1,740
Total	1,818,420

Montana

Cat Creek	67,600
Sunburst	370,200
Lake Basin	5,100
Total	442,900

Colorado

Florence	25,398
Moffat	52,432
Fort Collins	111,856
Boulder	750
Tow Creek	27,197
Rangeley	3,000
Iles	14,105
Walden	2,183
Total	236,921

New Mexico

Hogback	21,850
Rattlesnake	13,794
Table Mesa	6,052
Artesia	51,000
Total	92,696
Miscellaneous	1,500
Total	2,592,437

HUMBLE PLANS ADDITIONS TO INGLESIDE TANK FARM

SAN ANTONIO, Tex., July 11.—In order to handle the additional deliveries of oil at Ingleside when the Humble Pipe Line Co. completes its 400-mile line from McCamey, the Humble is preparing to make considerable enlargements to its tank farm and docks at Ingleside and officials of the company have been there looking over the country. The new line will be capable of delivering 40,000 bbls. daily. Humble has an 8-inch line from the Mirando Field and has been loading out vessels at Ingleside for the past six months and has six 80,000-bbl. tanks there for handling the product and a 450-foot dock at which vessels are loaded.

Construction work has started on 10 new 55,000-bbl. tanks, and this will be followed by 20 more, making 30 of that size, and it is announced that the dock facilities will be enlarged by dredging more slips. It also became known, following the visit of the officials to Ingleside, that the Humble would like to have the ship channel and turning basin dredged to 30 feet, which would make it a port of the first class. This cannot be done except on consent and action of Congress and would necessitate the deepening of the government channel, which was but recently completed.

Among the officials who were at Ingleside were James Anderson, vice president of the Humble Oil & Refining Co.; R. V. Hanrahan, president and general manager of the Humble Pipe Line Co.; J. A. Neath, superintendent; H. C. Evans, supervisor of tidewater terminals; M. J. Monroe, head sales manager at Houston; J. L. Finley, head sales manager at Baytown; all of the pipe company, and H. C. Weiss, director and general sales manager of the refining company.

Construction work is progressing according to schedule or a little ahead of schedule on the pipe line, and it is to be completed by fall.

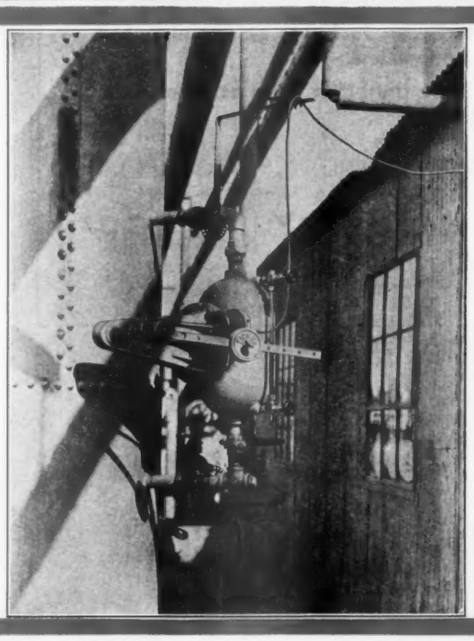
TEMPORARY CHAIRMAN

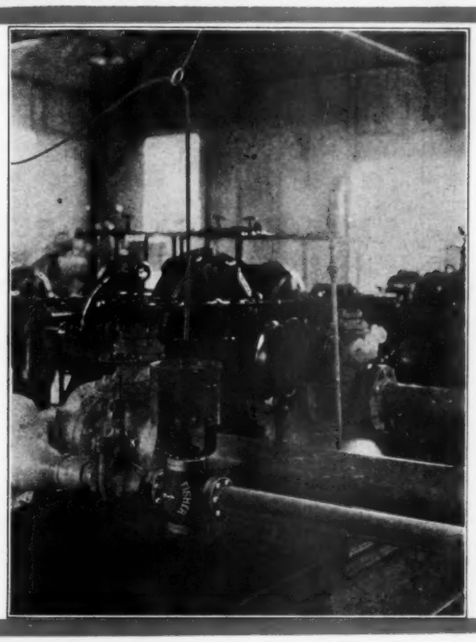
Paul D. Cravath, for 30 years general counsel, was elected temporary chairman of the board of directors of the Westinghouse Electric & Manufacturing Co. at a meeting of directors held July 6 in New York City. The board adopted a resolution instructing the executive committee to nominate a permanent chairman. It was stated, on behalf of the committee that they had no one at present in view for this office. The only addition made to the board of directors was the selection of W. L. Mellon of Pittsburgh.

OIL IN BALUCHISTAN

The Burmah Oil Co. has recently concluded an agreement with the Bugti tribe in Baluchistan under which permission is granted to prospect for oil. It is understood that wells are now being drilled and that the prospecting party is optimistic. This country is described as having an area of over 3,800 square miles and a population, mostly nomadic, of 20,000. It is hilly, barren and enjoys but scanty rainfall.

FISHER
TRADE MARK
REGISTERED





LIQUID LEVEL REMOTE CONTROL

Another installation of a Fisher Liquid Level Remote Control is here shown in the Carter Plant, Cromwell, Oklahoma.

In the case above, the float cage is installed outside the pump house on a tank, while the valve is located inside the pump house on a discharge line of a centrifugal pump. The float cage and the valve are 30 feet apart; in some installations there is a distance between the float cage and the valve of over 80 feet.

In this controller we use the regular cage of the Type 227A to which is attached a unique liquid transmission device, having a metal bellows on each end of a sealed transmission tubing. One bellows is installed on the cage and is actuated by the raising and the lowering of the float. The other end is mounted on the valve and the bellows is connected to the valve stem, directly transmitting the action of the float to the inner valve.

FISHER
TRADE MARK
REGISTERED

THE FISHER GOVERNOR COMPANY

396 Fisher Building

Marshalltown, Iowa, U. S. A.

Ask us for complete circular describing Type 240 Fisher Liquid Level Remote Control.

Type 240, is the only device of its kind sold to the Oil Industry. Think of the advantages of this equipment —to be able to control any pump or like installation at a distance.

These remote control devices are being extensively used and are giving most satisfactory service on each installation.

DEPENDABLE REFINERY PUMPS

Because of their recognized dependability, ruggedness of construction and efficiency, Byron Jackson pumps have been adopted by many refineries.

Throughout the oil industry, the use of Byron Jackson equipment is regarded as insurance against interrupted operation.

Back of every Byron Jackson pump is more than fifty years of experience in building special equipment for special service.

SINCE 1872

BYRON JACKSON PUMP MANUFACTURING CO.

FACTORIES: BERKELEY, LOS ANGELES, VISALIA

Branches: San Francisco, Portland, Salt Lake, Dallas, Phoenix

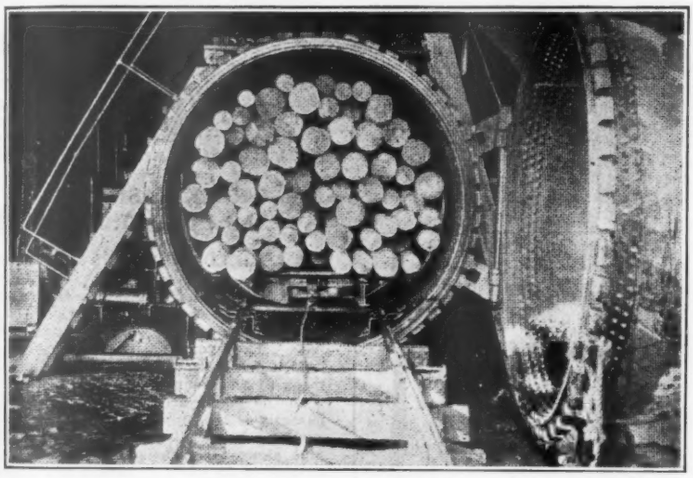
CREOSOTED PINE POLES BEING USED MORE EXTENSIVELY IN OIL FIELDS

By E. E. Boehne*
International Creosoting & Construction Co.

The use of creosoted pine poles, according to government statistics, increased 500 per cent between 1920 and 1925. Five hundred thousand were installed in 1923. That number increased to a million in 1924. What makes this latter fact particularly outstanding is that it was the only species of pole that materially increased during that period.

A pole's worth is measured by the length of time it gives satisfactory life in the line. What shortens that life, in the great majority of cases, is decay. Decay, then, and its prevention (which is preservative treatment), are prime points for consideration.

Decay in wood is caused by low forms of plants called fungi, and by bacteria. Through the secretion of little understood chemicals they dissolve the wood fiber, and its substance serves as food for the fungus. The science of timber preservation consists in poisoning that food (the wood). Creosote is the poison. The operation of injecting it deeply into the wood by pressure is the work of the modern wood preserving plant.



Treating cylinder ready to be sealed.

There are other wood preservatives, but creosote is by far the best known. The highest grade that can be used, and the only grade that should be used, is that which complies with the specifications of the American Wood Preservers' Association and the American Railway Engineering Association.

Seasoning Poles

The first step in the creosoting of pine poles, or rather a step preliminary to their treatment, is to "season" them, that is, to remove a sufficient amount of the moisture which all freshly cut wood contains to permit the entrance of the creosote. This is accomplished either by allowing the wood to dry on a seasoning yard, or by steaming it in the treating cylinders.

Two processes have recognized standing and are in general use for pole treatment. They are the Bethel process, using 12 pounds of creosote per cubic foot of wood, and leaving the wood cells full of creosote after treatment; and the Rueping process retaining 8 pounds of creosote per cubic foot and leaving the wood cells partially empty after treatment.

In the Bethel process, after the material is placed in the cylinder, a vacuum of about 24 inches is maintained until the wood is as dry and free from air as practicable and then, without first breaking the vacuum, the cylinder is completely filled with the creosote oil. After the retort is filled, additional creosote is forced into the cylinder by means of pressure pumps, the pressure being gradually raised to and maintained at not less than 125 pounds per square inch at a temperature of 180 to 200 degrees Fahrenheit until the required amount of the preservative has been forced into the wood. The pressure is then released, the oil drained from the cylinder and another vacuum drawn. The object of this final vacuum is to remove the surplus creosote from the surface of the timber, thus making the wood dryer on the surface and cleaner to handle.

Rueping Process

In the Rueping process, as the first step, air is pumped into the cylinder and thus into the wood under high pressure, then while this air pressure is maintained the cylinder is filled with creosote. As the oil enters, the air is gradually released, but without allowing the pressure to drop. In this way the cylinder is filled with oil, and a considerable quantity of air is entrapped in the wood at the same time. More oil is then pumped in and the pressure is increased. After the maximum quantity of creosote has been injected the pressure is released, the oil drained from the cylinder, and a final vacuum applied. This reduction in pressure allows the air entrapped in the wood to expand and force out much of the oil originally injected, leaving partially empty wood cells. The initial injection on 8-pound Rueping treatment averages 16 to 20 pounds of creosote per cubic foot of wood.

Pine, of all the commercial species, is the most susceptible to preservative treatment. In a given cylinder charge, creosote applied as just described, penetrates many poles throughout. Deep penetration is an all important factor, for it is practically a direct measure of the value of treatment—this because any kind of wood will check, and once the checks extend in beyond the creosoted layer untreated wood is exposed to decay and insect attack. Deep creosote penetration, therefore, is a first essential to good pole treatment.

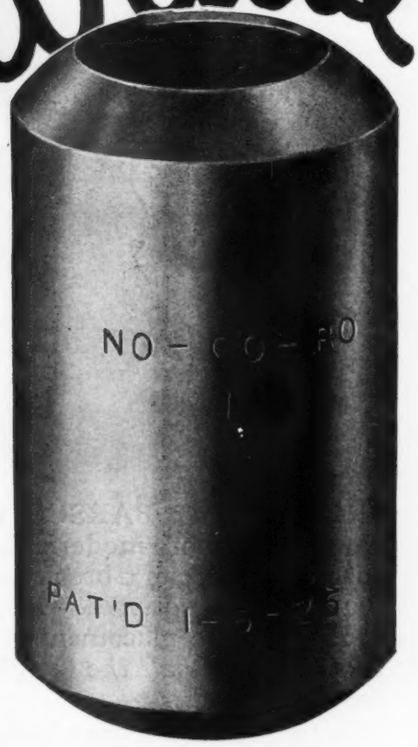
Long Life of Poles

If the question is asked, "What is the outstanding feature in the service of creosoted pine poles?" this would be the answer: "They have the longest life of any kind of wooden poles, and during that life their strength remains practically undiminished."

The strength of pine is outstanding in that it is the highest, the most permanent and the most uniform of any of the pole woods. Exhaustive government tests show its modulus of rupture to be over 30 per cent greater than the nearest other pole species. What is almost as important is that 15 or 20 years after installation that strength is no less than when the poles first went into the line. Recently the American Telephone & Telegraph Co.

*Before Missouri Association of Public Utilities.

...here precision prevails



One of the Chief Reasons for the Almost Unbelievable Records the DROP & Seat is Making

A Kansas user of No-Co-Ro DROPS & Seats (name on request) just reports 36 months' service in a well in which the balls and seats were changed *every month.*

While such service is due primarily to *design,* materials and workmanship also play an important role. The metal in No-Co-Ro DROPS & Seats is specially prepared according to an exacting formula. It combines amazing hardness with equally amazing resistance to shock. It will not pit, chip or corrode even under the most adverse conditions.

Machining and heat treating are done under the personal supervision of officials with 35 years' experience to guide them. Throughout the process of manufacture, precision prevails!

That is why we are able to guarantee every No-Co-Ro DROP & Seat to outlast and out-perform any two balls and seats you have ever used.

NORRIS BROTHERS, Inc.

Robinson, Illinois, and Fort Worth, Texas

No-Co-Ro Balls & Seats are Guaranteed to Outlast the Best Balls & Seats You Have Ever Used.

This is another of a series on specifications—keep for reference in ordering.

BARSCO

Forged Steel
Braden Heads

Here's another BARSCO product that, because of its more modern superior design and *forged steel* [can't break] construction, renders a *longer service - - more economical* because fewer replacements - - approximately *less than one-half the weight* of the ordinary cast iron head.

The *forged steel* from which the head is made has a carbon content of from 50 to 60 points and tensile strength of from 90,000 to 110,000 pounds. Will stand up under the most severe service—*no danger of breakage.*

For working pressures up to 4000 pounds

"Barsco" Forged Steel Braden Heads are provided with an inner thread into which a short piece of casing is screwed. The head is then lowered into position below the derrick floor and set up. Outlets are threaded for 2-inch or 3-inch pipe. These heads are furnished with rubber rings for packing and a split steel ring which can be removed, allowing the couplings to be pulled through head without breaking any connections. Furnished with either solid or split Stuffing Box.

Prices and weights furnished upon application.

Stocks Carried by Dealers

BARTLESVILLE SUPPLY COMPANY of Missouri
3400 MAURY AVENUE—ST. LOUIS, MISSOURI
Texas Warehouse—J. G. Lockard, 504 Western Ave., Amarillo, Texas
Export Office: 150 Broadway, New York City

Manufacturer's Representatives

B. & A. Specialty Co., Tulsa, Okla.
Miller Tank & Supply Co., Casper, Wyo.

—Write for Complete Catalog

tested sound creosoted pine poles 27 years old and found them practically as strong as new.

As to uniformity, the Bureau of Standards after studying the plotted results of the load in pounds at which hundreds of test poles broke pointed out that the strength of individual poles in the Southern Yellow pine group departed less from the average than any of the other species. That is, pine's strength is the most uniform.

In line construction practical advantage is taken of the above facts in one of two ways: either by using smaller poles or by using longer spans.

The life of creosoted pine poles is not known. The oldest installations are still in use; their present condition is good and there is nothing to indicate how much longer they will last. Several lines for which records are available show less than 10 per cent renewals in 25 to 30 years. In many lines 10 to 20 years old it has not been necessary to replace a pole. The remarkable thing is that these very old poles are still in apparently splendid condition. An increment boring taken at the ground line on a 25-qear-old pole is of such appearance that if placed in a group of borings from creosoted poles just from the treating cylinder it could not be distinguished.

Termites or White Ants

The attack of white ants on poles is becoming an increasingly vexing problem. Once they gain entrance to a pole, nothing can stop them.

The white ant problem is serious. Any pole using utility may well study it. The status of creosoted pine poles, with regard to white ant attack, is covered by the statement quoted below from government bulletin No. 1231 "Tests of Methods of Protecting Woods Against Termites or White Ants." The bulletin says:

Creosoted pine poles in oil fields of the Gulf Coast area.

"The most effective preservative in protecting timber to be set in the ground from attacks by termites is coal-tar creosote. . . . Impregnation by the full cell process with coal-tar creosote renders wood resistant for at least 25 years."

To touch briefly on two or three further points: There is the matter of conductivity — whether creosote effects the resistance of wood to the passage of current. Engineering committees that have studied it are quoted as follows:

Summary of Southwestern Bell Report, 1924.

"The question is sometimes raised as to whether untreated poles are more suitable than treated poles for joint use with electric companies. This bulletin indicates that pole resistances are lowest when the pole surfaces are wet and that under these conditions the resistances of treated and untreated poles are approximately the same. For these reasons, it is felt that as far as safe operating conditions and safety to linemen are concerned, treated poles are as satisfactory for jointly used lines as untreated poles."

Use in Cities

In times past and occasionally even now the question is raised as to use of creosoted pine poles on busy city streets. Some objection has been raised on the basis that their oily surface will damage the clothing of people who might come in contact with them.

With the advent of the Rueping empty cell process, this objection has been largely eliminated. The science of wood preservation, like other sciences, has advanced greatly during recent years and with the better knowledge of timber seasoning methods, of creosoté, and of treatment, the creosoted pine pole, particularly when treated by the Rueping process, has but little objection on this score. Comparatively speaking, it is a clean pole. Hundreds of cities are using them on busy streets.

Creosoted pine poles do differ in quality. They all look black on the surface, yet the service in your line depends on what is beneath the surface—the soundness of the timber, the quantity and quality of the creosote, and the thoroughness of the treatment. Price considered alone —the blind worship of the low bid, is suicidal to pole service.

One of the outstanding developments in modern pole business has been the substitution of a quality or a service motive for the price motive in buying. The trend of the co-operative supplier today is distinctly away from first cost and toward the more substantial values that frequently are inconsistent with low price.

OLD TRUCK CASINGS AS PIPE PROTECTORS

AMARILLO, Tex., July 9.—The West Texas Gas Co., Amarillo, Tex., building a gas line from Dial in Carson County to Lubbock in the South Plains area, has found a new use for worn-out truck casinge. The worn casings are used as "shock absorbers" in rolling pipe from a truck to the ground.

In the plains area where distance apparently is the only transportation problem, trucks hauling and stringing the pipe along the right of way are loaded with 18 to 21 joints of 15-inch pipe. The worn tires are chained to the side on which the pipe will be unloaded and dropped to the ground when truckmen start unloading. They are dragged along as the truck advances. When the pipe rolls off it strikes the casings which cushion the fall and lessen the danger of damaging pipe while unloading.

SURVEY AIDS PRODUCER

WASHINGTON, D. C., July 9.—The Geological Survey of the Department of the Interior is sometimes referred to as the consulting geologist for the people, for the small miner, operator or landowner who does not have the advantage of the scientific or technical staff that is now maintained by most of the large companies.

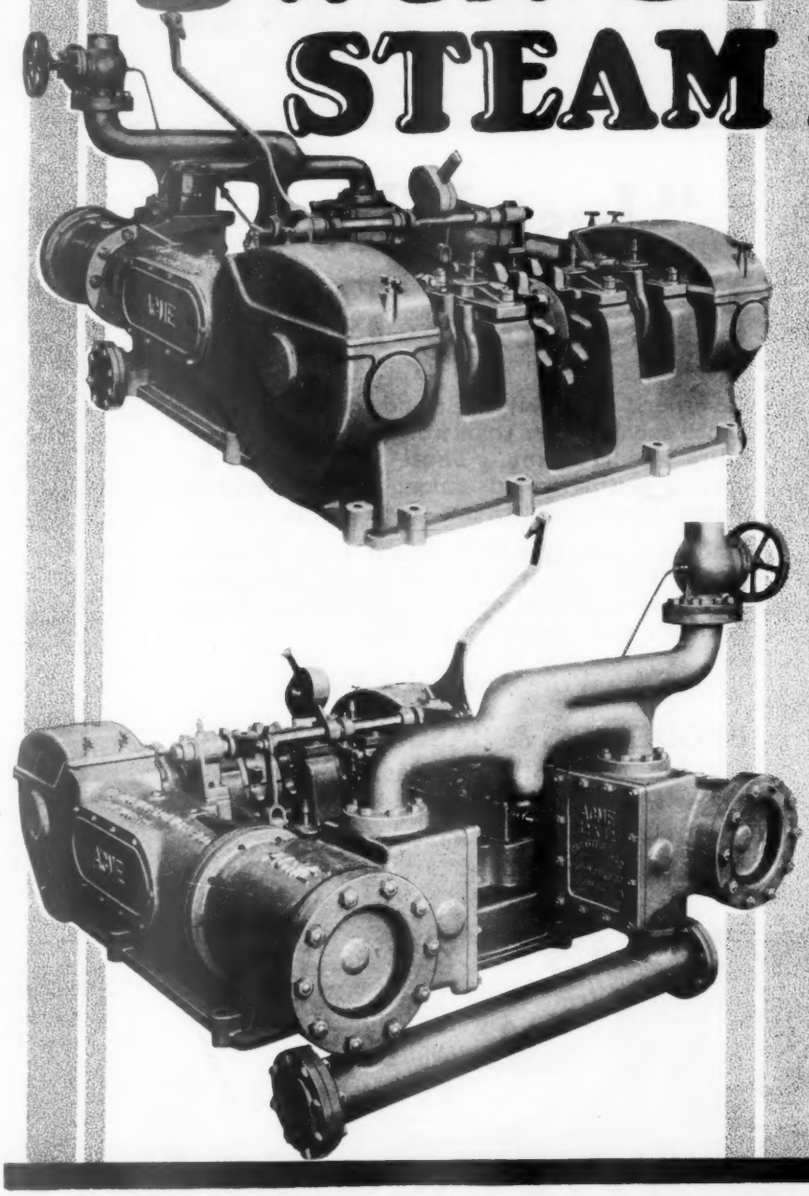
As a typical example of such service, a correspondent writes the Geological Survey that he is sending a section of an oil well drill core containing a fossil from the 5,852-foot depth of a well he is drilling south of Beaumont, Jefferson County, Texas, and asks that the Survey examine the specimen and identify the geologic formation in which it occurs.

The director stated he will be glad to have the core samples sent in together with the complete log of the well, and promises a report as soon as it is possible for the specialists to make the examination of the material.

AVOIDING POLLUTION

AUSTIN, Tex., July 9. — Officials of the Humble Oil & Refining Co. have authorized expenditure of $300,000 to secure more strict observance of the state stream pollution law in the Goose Creek Field of Harris County, after conference with representatives of the game, fish and oyster department. Drainage from the Goose Creek fields empties finally into Trinity Bay.

TITUSVILLE TWIN CYLINDER STEAM ENGINES



The Titusville Acme Twin Cylinder Steam Engine is always efficient, always reliable for all kinds of oil well drilling operations.

Examine its design and construction from every angle—note the completely enclosed working parts and the water drain on the steam manifold.

Consider the long life advantages of four separate main bearings with interchangeable babbitt liners and caps die cast for quick replacement in the field, and the highly efficient splash lubricating system—then you'll realize why the Acme Steam Engine is the most dependable steam power unit money can buy.

Ask your Continental Supply man to show you this dependable steam unit.

The TITUSVILLE IRON WORKS Co.
TITUSVILLE - PENNA.

SOLE DISTRIBUTORS

The CONTINENTAL SUPPLY COMPANY

For THE CONTINENTAL
72-76 Trinity Court

Export
WELL SUPPLY CO.
New York City, N. Y.

Titusville Acme Boilers
Single and Twin Steam Drilling Engines
Tico Gas Engines
Band Wheel and Geared Powers

Titusville Acme Rotaries
Acme Swivels and Speed Draw Works
High Pressure Boilers
Crown Blocks
Slush Pumps

RUGGED AND ENDURING

Yellow Strand
Rotary Drilling Lines

"Just Like the Last Reel"

Re-orders for Yellow Strand Rotary Drilling Lines speak louder than words as to their capability and economy. These lasting lines are making lasting friends among rotary operators. Names if you want them—and records, too.

Made of wire specially drawn from Sheffield steel. This wire has 240,000 to 260,000 pounds tensile strength per square inch. Yellow Strand is elastic and unusually flexible.

Write for Catalog K-2

BRODERICK & BASCOM ROPE CO.
St. Louis, Mo.

Branches: 68-70-72 Washington St., New York City and Seattle, Wash.
Factories: St. Louis, Mo., and Seattle, Wash.

LR695

TANK WAGON PRICES SHOW SLIGHT ADVANCES OVER PREVIOUS MONTH

For the first time since June 1, 1926, the average gasoline tank wagon price in The Oil and Gas Journal's 50 cities shows an improvement over the previous month. On July 1 the average price, free of taxes, was 14.86 cents and on June 1 was 14.72 cents. The improvement is slight and was not brought about until the past few days of June and on July 1 when a general advance of 1 cent was made along the Pacific Coast and in Arizona and Nevada. Although the present price is nearly as low as it has been over the past five years the improvement over that of last month seems to indicate the recent overproduction of gasoline and low crude prices forced the tank wagon prices below that which could be reasonably expected and as adjustments take place during the present high consuming period, the general tank wagon structure will strengthen.

To show the present relatively low average price compared to a year ago reference should be made to the accompanying table of monthly averages and the present price of 14.86 cents will be seen to be nearly 5 cents below the 19.697 cents one year ago. The actual difference of 4.837 cents is decreasing the daily revenue of the oil companies about $1,750,000. The lower tank wagon prices are not fully reflected in the station prices because of the increasing taxes. The average tax on July 1 was 2.83 cents and was increased during the month to that figure by an increase in the tax of 1 cent in Arkansas on June 9, the adopting of a 1-cent tax increase in South Dakota, 1 cent in Florida, one-half cent

GASOLINE PRICES EFFECTIVE JULY 1, 1927

Table showing gasoline tank wagon prices as of July 1, 1927, exclusive of taxes, in 50 representative cities, including the amount and the date of changes since June 1, 1927. High and low prices and state taxes also given.

	Prices June 1	June Changes	Prices July 1	High and Low 1926		1925		Tax July 1927
Birmingham, Ala.	14.0	....	14.0	20.0	16.0	20.0	13.0	4.0
Phoenix, Ariz.	18.0	....	**19.0	22.0	19.0	20.0	18.0	3.0
Little Rock, Ark.	13.0	....	13.0	18.0	14.0	19.0	12.0	5.0
San Francisco, Calif.	13.0	....	**14.0	16.0	13.0	15.0	13.0	2.0
Denver, Colo.	15.0	8 16.0	16.0	20.0	16.0	20.0	12.0	3.0
Hartford, Conn.	19.0	....	19.0	21.0	17.0	21.0	15.0	2.0
Dover, Del.	16.0	....	16.0	20.0	17.0	21.0	15.0	3.0
Jacksonville, Fla.	13.0	....	13.0	19.0	12.0	19.0	12.0	5.0
*Atlanta, Ga.	14.0	....	14.0	21.0	14.0	21.0	14.0	3.5
Boise, Idaho	19.5	....	19.5	24.0	20.0	21.5	15.0	4.0
Peoria, Ill.	13.2	....	13.2	19.2	10.5	19.2	10.5	...
Chicago, Ill.	14.0	....	14.0	18.0	15.0	18.0	13.0	...
Indianapolis, Ind.	13.2	....	13.2	19.2	16.2	19.2	13.2	3.0
Des Moines, Iowa	13.0	....	13.0	19.5	16.0	19.5	13.5	2.0
Wichita, Kans.	11.8	...	11.8	16.8	14.8	18.8	8.8	2.0
Louisville, Ky.	14.0	....	14.0	20.0	17.0	19.0	12.0	5.0
New Orleans, La.	12.5	....	12.5	17.5	13.5	18.5	11.5	†3.0
Augusta, Me.	19.0	....	19.0	21.0	17.0	22.0	15.0	3.0
Baltimore, Md.	16.0	....	16.0	19.0	15.0	19.0	13.0	4.0
Springfield, Mass.	17.0	....	17.0	21.0	17.0	21.0	15.0	...
Detroit, Mich.	13.8	....	13.8	19.8	16.8	19.8	13.8	2.0
Duluth, Minn.	14.5	10 12.5	12.5	20.5	15.5	20.5	13.5	2.0
Natchez, Miss.	12.5	....	12.5	18.5	15.5	18.5	11.5	4.0
Kansas City, Mo.	12.9	10 10.9	10.9	18.9	15.9	18.9	12.9	†3.0
Helena, Mont.	19.5	....	19.5	24.0	21.0	24.0	18.0	3 0
Omaha, Neb.	12.25	....	12.25	19.25	14.25	19.25	10.0	2.0
Reno, Nev.	17.0	....	**18.0	19.5	16.5	18.5	16.5	4.0
Newark, N. J.	16.0	....	**18.0	19.0	15.0	19.0	13.5	2.0
Albuquerque, N. Mex.	16.0	....	16.0	26.5	20.0	23.5	19.5	5.0
New York, N. Y.	19.0	....	19.0	21.0	17.0	22.0	15.0	...
Charlotte, N. C.	16.0	....	16.0	19.5	15.5	20.0	12.0	4.0
Fargo, N. D.	14.0	....	14.0	21.0	18.9	20.9	14.9	2.0
Cleveland, Ohio	16.0	....	16.0	20.0	16.0	18.5	15.0	3.0
Tulsa, Okla.	11.0	....	11.0	17.0	13.0	18.0	9.5	3.0
Portland, Ore.	13.5	....	14.5	16.0	13.0	15.0	13.0	3.0
Philadelphia, Pa.	14.0	15 12.0	12.0	20.0	17.0	21.0	15.0	‡2 0
Providence, R. I.	17.0	....	17.0	21.0	17.0	22.0	15.0	1.0
Charleston, S. C.	15.0	....	15.0	19.5	15.0	20.5	12.5	5.0
Huron, S. D.	11.5	....	11.5	20.5	14.0	20.0	13.0	4.0
Memphis, Tenn.	10.0	27 12.0	12.0	18.5	13.5	18.5	10.5	3.0
Dallas, Tex.	10.0	9 12.0	12.0	17.0	13.0	18.0	10.0	3.0
Salt Lake City, Utah	17.5	....	17.5	22.5	18.5	21.5	17.5	3.5
Burlington, Vt.	19.0	....	19.0	21.0	18.0	22.0	15.0	2.0
Norfolk, Va.	16.0	....	16.0	19.0	15.0	20.0	14.5	4.5
Washington, D. C.	14.0	....	**16.0	19.0	15.0	19.0	14.0	2.0
Charleston, W. Va.	16.0	....	16.0	19.0	15.0	19.0	14.0	3.5
Milwaukee, Wis.	13.1	....	13.1	19.1	16.1	19.1	13.1	2.0
Casper, Wyo.	15.0	....	15.0	20.0	17.0	20.0	15.0	3.0
Seattle, Wash.	13.5	....	**14.5	16.0	13.0	15.0	13.0	2.0
Minneapolis, Minn.	12.0	5 11.0	11.0	20.2	15.2	20.2	13.2	2.0
Average price	14.72	....	14.86	19.717	15.713	19.647	13.629	2.83

*Does not include ½-cent inspection fee, paid by retail dealer. **Effective July 1. †State tax 2 cents, remainder city tax. ‡Tax

What makes a Balloon burst?

The billions of bubbles in a Campbell Absorber are really billions of tiny balloons, under pressure, constantly distorting, rubbing against one another, bursting and remaking. This agitation continues throughout the tower, intimately exposing gas to oil film. There are no dead areas, no channeling. By the time the wet gas has traveled through the sixteen individual pools in continuous contact with the absorbing oil, the gasoline has been thoroughly extracted.

J. A. Campbell

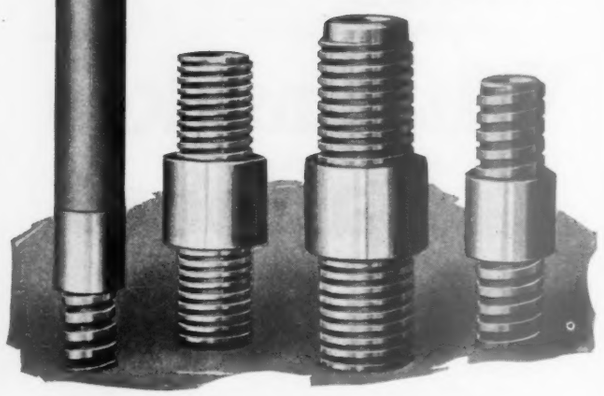
Consulting—Designing—Constructing

Natural Gas Engineer

P. O. Box 669 LONG BEACH, CALIF.

CAMPBELL OIL FROTH absorber

LONGYEAR Drill Supplies MEAN LOWER COSTS



YOUR diamond drill, operating under the watchful eye of the drill runner, may continue to perform its duty indefinitely. An occasional regulation of the feed, and the rotating drill rods continue their downward progress until a new length must be added or—a rod breaks under heavy torsional strain. When a diamond drill rod twists off or a soft steel bit wears down too fast, endangering the carbon, the true cost of replacement is not the few cents necessary to buy the new part, but the working time lost while the replacement is being made. The breaking of a $10 rod may mean the addition of ten hours of "dead" time to your drilling costs.

The Longyear manufacturing organization, engaged in the production of diamond drills and diamond drill supplies exclusively, is prepared to supply you with drill rods and couplings, core shells, core barrels, blank bits, and other drilling equipment of proven excellence. Our specifications for steel used in their manufacture insure a finished product of proper hardness and toughness to meet the heavy demands of diamond drilling.

Complete stocks of drilling supplies are on hand at Ponca City, Oklahoma and Marquette, Michigan.

Write for catalog.

E. J. Longyear Company
Minneapolis, Minnesota, U.S.A.

in West Virginia on July 1, and a 2-cent tax in New Jersey on July 1. On July 4 Iowa will increase the tax from 3 to 4 cents and on August 1 Illinois will adopt a 2-cent tax. The average tax over the United States as represented by the 50 cities has increased .37 cent since July 1, last year.

AVERAGE TANK WAGON PRICE IN 50 CITIES

January 1, 1926	16.133
February 1	16.213
March 1	17.267
April 1	18.517
May 1	18.487
June 1	19.607
July 1	19.697
August 1	19.697
September 1	19.587
October 1	19.167
November 1	18.187
December 1	17.607
January 1, 1927	17.567
February 1	17.469
March 1	17.007
April 1	16.160
May 1	15.320
June 1	14.720
July 1	14.78

Highway Expansion To Measure Future Gasoline Consumption

By N. O. Fanning
New York Bureau, The Oil and Gas Journal.

NEW YORK, July 9.—The saying that if every automobile in the United States were placed end to end it would make a Sunday afternoon illustrates an impression that has gained ground considerably in recent years. That is, that this country has reached the limit of its capacity to use and absorb motor vehicles, and therefore that the automobile industry and the gasoline demand in connection with it have reached the saturation point.

A study of the situation reveals that the motor vehicle is far from having reached the prime of its usefulness in the United States. The real fact of the matter is that the country needs more automobiles, but just now it is not prepared to operate them efficiently, due principally to the insufficiency of its highways. The problem of motor expansion goes hand in hand with gasoline consumption, and therefore the possibilities of the former are of interest to the oil industry.

In estimating the future of the automobile demand, it is customary to dwell on the foreign field, due to the fact that from the viewpoint of population, the motor vehicle is much more intrenched here than in any foreign country. The figures are advencad that in the United States there is a motor vehicle for every 5 persons, while in France there is one for every 50 persons. The conclusion is then drawn that France has a potential market density of a car for every 5 persons or about 10 times the present market.

This method of calculation may be accurate in some respects, but it omits many factors relative to the economic place of the motor vehicle in everyday life and business. The automobile, for instance (or the truck) does not bear a direct relationship to population, from the viewpoint of its actual use. Therefore, the present or future market cannot actually be measured by means of computing this relationship. The motor vehicle is an agent of transportation. Its use is not only relative to its capacity, but also to the distance which it travels. Its life is dependent principally upon extent of its use, that is, the mileage covered.

The real value of a motor vehicle lies in its availability for convenient and useful transportation for people or freight, in competition with other possible means of transportation. On this is dependent in turn the extent of its actual use, and also the amount of fuel it consumes, so that the future of the motor vehicle and the market for gasoline should be estimated in terms of mileage covered rather than on any basis relative to population, as important as the latter may be.

United States Market

Looking at it from this angle, it appears that the market for gasoline in connection with the motor vehicle is capable of as great expansion in the United States as in many countries in which the population per car is much greater than here. The factors that will develop this expansion in this country are improvement of highways and development of more efficient traffic regulation methods. Population itself certainly is a factor, but not the dominant factor.

Many new and wonderful highways have been completed in the United States in recent years, but this is only in its infancy. For every mile of improved highway in the country there are at least 10 miles unimproved. In as much as the automobile has established itself as the most efficient and convenient method of transportation for families, and companies handling freight, there is no reason why all unimproved roads now in existence, with few exceptions, should not be ultimately improved. When that is accomplished, there will be room for many times more motor vehicles in the country than are now in use.

The insufficiency of highways is partly responsible now for the congestion in many parts of the country, in as much as owners and users of motor vehicles will spread out so far as the availability of good roads allows, both as to residence and location of factory or other type of business.

Progress is being made in highway construction, and this is the factor which makes the immediate and long-distance outlook for the automobile industry and fuel consumption particularly bright. But it is probable that the real value of good highways is not yet generally enough appreciated to bring about as rapid progress as actually could be made with present resources and labor supply. It is also probable that improvements will be made in the methods or materials used in highway construction.

The availability of additional highways and the reducing of congestion would increase greatly the demand for automobiles as well as the mileage traveled per car. Therefore, it can be seen that the saturation point in motor vehicles has only been reached provided highway construction and efficient traffic regulation are at an end the future of the automobile is only dependent upon the effort expended to give it the maximum usefulness; in other words, is dependent only upon the public will.

Looking at the matter in this way makes it appear that the United States still is one of the most important fields for automobile expansion, and that the motor vehicle manufacturers and oil men should not take too seriously talk of saturation.

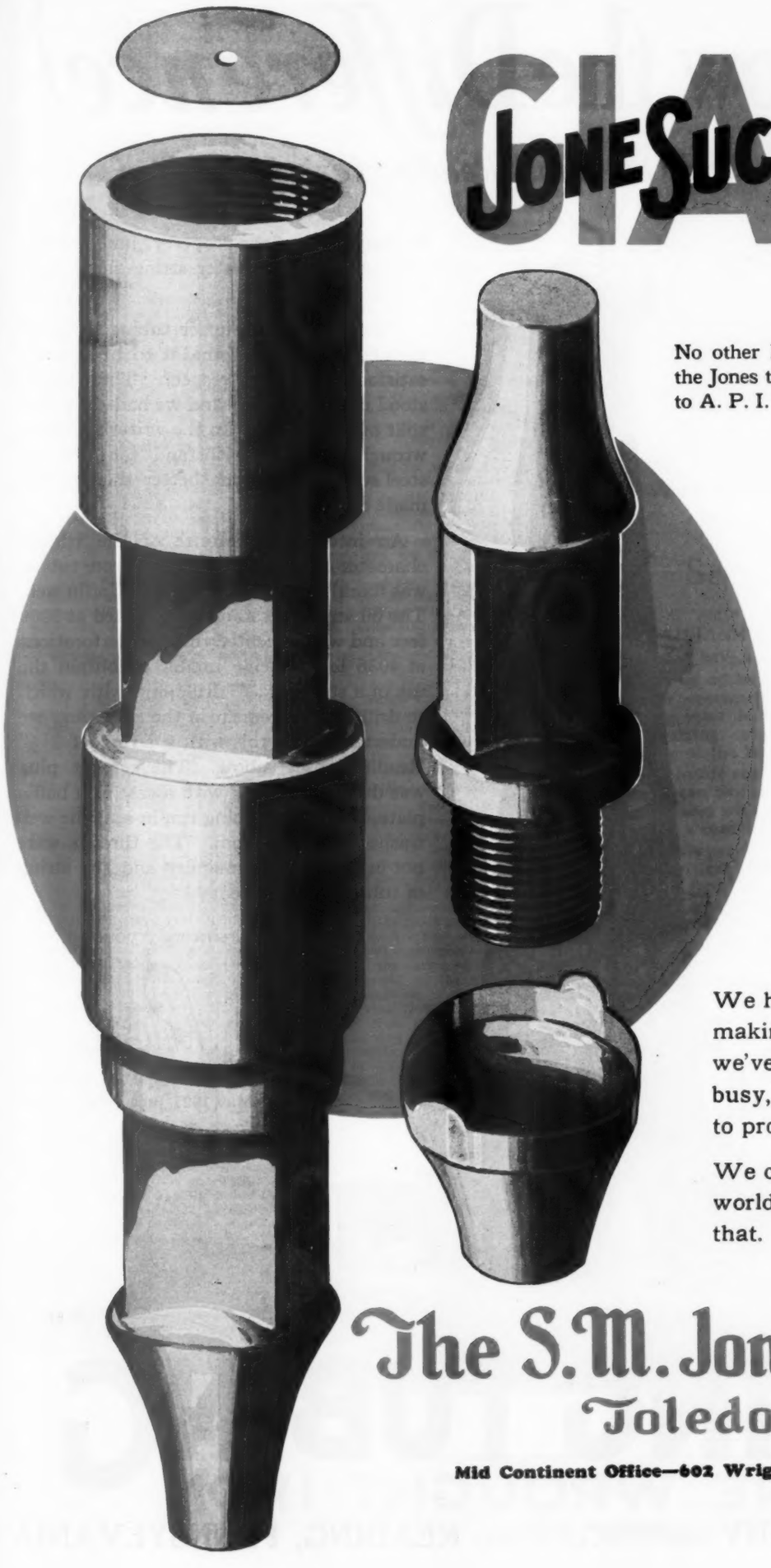
Area Important Factor

That area is also an important factor with relation to motor vehicle and fuel markets is obvious, in as much as distance traveled must be governed somewhat by it. In this respect the United States offers exceptional opportunities. The size of the country makes it possible to travel thousands of miles in one direction without having to cross international borders. In addition, a country of the size and shape of the United States lends itself especially to motor vehicle travel, in as much as there are exceptionally few narrow bodies of land, and the country is not divided by any great body of water that cannot be bridged. The country therefore lends itself particularly well to expansion of motor transportation.

In many foreign countries where there is a dense population physical conditions do not lend themselves to motor travel except partially. Although in many of such countries the motor vehicle use is bound to expand greatly because this form of transportation is in its earliest stage of development, the density based on population will never be as great as in the United States, according to estimates. For instance, Italy, with 30,000,-

(Continued on Page 106)

GIANT JONES SUCKER RODS



No other Rod has the milk bottle cap or the Jones thread protector. Threads made to A. P. I. Standards if desired.

No matter what thread is used it is only as good as the machine work.

We have to be extremely careful in making these Giant Rods, because we've got a mighty big plant to keep busy, and a mighty good reputation to protect—

We claim these Giant Rods are the world's finest—and we mean just that.

The S. M. Jones Company
Toledo, Ohio.

Mid Continent Office—602 Wright Building, Tulsa, Oklahoma

Users Know the Difference!

Here is what an Expert Finds Out About Reading Casing and Tubing.

605 Nebraska Ave.,
Long Beach, Calif.,
August 5, 1926.

Mr. A. F. McClintock,
826 Van Nuys Bldg.,
Los Angeles, Calif.

Dear Sir:

In regard to the different Reading Iron Co. products used in the wells on the W. R. Ramsey properties, in the Long Beach Field, California, and the reasons for using these products, I will state as follows:

There were fourteen wells drilled in all, and of these thirteen were equipped with Reading tubular goods, 8¼" for water strings, 6¼ and 4½ for oil strings and 2½ and 3" tubing. We felt, that due to the unknown qualities of the surface and deep waters, it would be the best policy to use a material which we knew would resist corrosion to the greatest possible extent. It was for this reason primarily that we deceided on the exclusive use of Reading iron for our water strings and in most cases for our oil strings as well, on account of the ultimate encroachment of edge waters in the oil sands. We found the best kind of workmanship in the couplings and threads, and very few joints had to be laid down.

In the thirteen wells equipped with Reading Casing we did not fail in a single water shut-off and up to the time of Mr. Ramsey's sale of the property, June 1, 1926, we had not had a water string show signs of leaking.

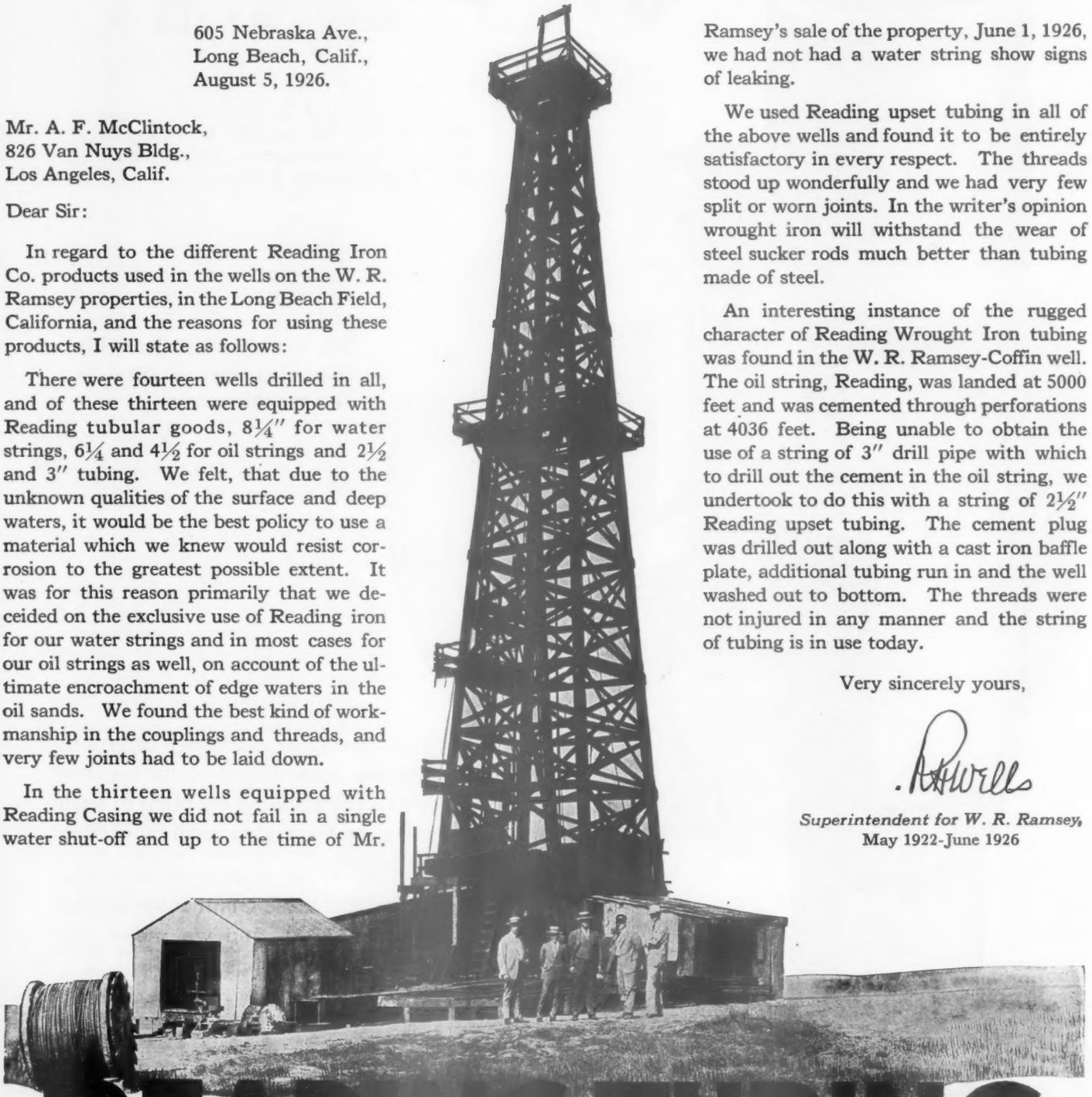
We used Reading upset tubing in all of the above wells and found it to be entirely satisfactory in every respect. The threads stood up wonderfully and we had very few split or worn joints. In the writer's opinion wrought iron will withstand the wear of steel sucker rods much better than tubing made of steel.

An interesting instance of the rugged character of Reading Wrought Iron tubing was found in the W. R. Ramsey-Coffin well. The oil string, Reading, was landed at 5000 feet and was cemented through perforations at 4036 feet. Being unable to obtain the use of a string of 3" drill pipe with which to drill out the cement in the oil string, we undertook to do this with a string of 2½" Reading upset tubing. The cement plug was drilled out along with a cast iron baffle plate, additional tubing run in and the well washed out to bottom. The threads were not injured in any manner and the string of tubing is in use today.

Very sincerely yours,

R. H. Wells

Superintendent for W. R. Ramsey,
May 1922-June 1926



READING TUBING

GENUINE WROUGHT IRON

READING IRON COMPANY HOUSTON, TULSA, SHREVEPORT, LOS ANGELES READING, PENNSYLVANIA

KENTUCKY-TENNESSEE

(Continued from Page 63)

south in Ohio County, in late development work may bring further tests to the south, as there is big area of Ohio County territory south of the new pool to test out.

Owensboro is the jumping off place for outsiders entering the field, and unusual activity is noted about the headquarters there which is the Rudd Hotel, where a number of new men are seen daily who are becoming interested in the fascinating and sometimes lucrative game. Leasers are over the field in plenty, not individually, but the large operating concerns are making an effort to get a foothold in territory where some of the choice wells are being found and watching closely the wildcat development.

Much leasing is being done across the Ohio River in Indiana, and some test work is being planned for that portion of the Hoosier State.

Just at this time the Scottsville Field, in Allen County and Simpson County, is very quiet, there being few wells under way, and the same conditions prevail in the Bowling Green Field of Warren County. Considerable activity is shown in the Glasgow Field of Barren County, especially in the Lecta Pool, where wells as good as 50 bbls. initial are being found in the Blue sand which lies below the gas sand which has been a steady producer in the county for many years, but the Blue sand gives the better producers and a high gravity crude, of the Pennsylvania grade, which brings Somerset prices.

Week's Work

A summary of the week's work in the Kentucky Field shows 18 completions, 15 producers with an initial of 1,051 bbls., 1 dry hole and 2 gas wells. Compared with the previous week there were 2 more completions, 3 more oil producers, 276 bbls. more production, 2 less dry holes and 1 more gas well. The wells were distributed by counties and districts as follows:

County—	Oil Comp.	Wells	Prod.	Dry	Gas
Estill	6	5	11	1	0
Ohio	5	5	980	0	0
Johnson-Magoffin	3	3	45	0	0
Owsley	2	0	0	0	2
Lee	1	1	10	0	0
Wayne	1	1	5	0	0
Total	18	15	1,051	1	2
Last week	16	12	775	3	1
Difference	2	3	276	2	1

Eastern Kentucky

The Cumberland Pipe Line Co. completed its connection from its trunk line to the well of the Big Injun Oil Co. on the J. F. Brewer farm, near Island Creek, in Owsley County, on July 1, and will take the crude in tanks from the initial test on that farm which was drilled in several months ago, the largest producer ever drilled in Kentucky. This well broke loose when the Big Injun sand was struck at a depth of 743 feet and for the first 24 hours flowed at the rate of 225 bbls. an hour and for the second 24 hours at the rate of 75 bbls. an hour and then went dead. Later the Pipe Line Co. made a 10-day test of the well and the last day of the test showed the well to be doing 175 bbls. day and growing stronger. Word comes that the second well hit the Big Injun sand at 690 feet and was flowing at a furious rate, but the contractor has it under control. The Big Injun Co. is composed in part of O. H. Pollard of Jackson, Ky.; Dr. J. N. Sebastian of Louisville and Monroe McGuire and V. S. Beatty of Beattyville, Ky. The latter two are the men that brought in the first gusher on the Brewer land. How much the new well will make is only hearsay, but Mr. McGuire said he had excellent reason to believe it would produce as much as 500 bbls. initial because there was more pressure than is usual with a new well. The second well, like the first, flowed much oil into Island Creek before it was got under control. While a few small producers have been found in that part of Owsley County the belief is that a very productive pool is in the making. Evidence of the expected rush to the new well showed up the following day after the well showed oil when those interested in oil began searching Beattyville for means of getting into the field. An automobile load of men made the trip over 20 miles of poor country road as soon as the news reached Beattyville. The Petroleum Exploration Co. holds considerable acreage in the vicinity and has a lease 105 feet from the new well, and will no doubt start active drilling as soon as material can be put on the property. It is expensive getting in material, as but small loads can be trucked over the bad roads to the scene of the well from the nearest supply point at Beattyville.

Idamay Gas Field

Two good gas wells have been brought in the Idamay gas field in Owsley County by the Petroleum Exploration Co., both being in outlying sections of a big block of territory controlled by this company. No. 1 on the W. M. Bowman lease showed a volume of 1,224,000 feet, and the other on the Margaret Moore lease, near the mouth of Crane Creek and in the northwestern extension of the Owsley County gas field, measured 1,117,000 feet. This last well proves up a large scope of territory for the company. Both of these wells with 36 other gas producers will be turned into the new gas line now being constructed to furnish fuel to Lexington and other Kentucky cities.

In District 18 of Lee-Owsley Counties, Williamson & Caywood's No. 5 on the John P. Fraley farm, is good for 10 bbls.

In District 13, Wayne County, W. E. Woodrow's No. 7 on the Cooper Coal Co.'s land is a 5-bbl. pumper.

In the Ravenna Field, District 8, of Estill County, the Superior Oil Corp.'s Nos. 9 and 10 on the A. F. West and others' land are 2-bbl. pumpers; same company's No. 13 Green Campbell land is only good for 1 bbl., while No. 14 on the J. D. Alexander farm is a 2-bbl. pumper. Wood Oil Co.'s No. 9 on the S. M. Maple land is good for 3 bbls. In District 7, same county, McEldowney, Bowser and others' No. 1 on an unknown pice of land drilled in a dry hole.

In Johnson-Magoffin Counties, District 30, the Hargis Oil Co.'s No. 13 on the Mark Bays farm is a 5-bbl. pumper. In District 31, Hupp, Duff and others' second test on the Riggs Bailey farm, in advance of the Ivyton Field, showed a 25-bbl. initial production.

Western Kentucky

The Ambrose Pool in Ohio County, in the western division, is showing great strides and indications are for the finding of extensions or new pools before the next few months pass. Five new wells have been completed in the Ambrose Pool, and have their first 24 hours' production in tankage, and several others are in the sand ready to shoot and put oil into the tanks. The five new wells have a combined initial production of 980 bbls., and will swell the output of Ohio County to a large extent, as the wells show good staying qualities.

The Creek Drilling Co.'s No. 4 well, 150 feet from the north line and 750 from the west line of the Sally Earley 112 acres, in the Ambrose Pool, set a string of 556 feet of casing, got sand from 556 to 604 feet and went to a total depth of 606 feet and was given a shot of 180 quarts. The initial production was 200 bbls. Same company's No. 5 well, 150 feet from the north line and 1,100 feet from the west line of the same farm, put in 577 feet of casing, struck sand at from 577 to 623 feet and was shot with 180 quarts after going to a total depth of 625 feet, the first 24 hours' production amounting to 200 bbls.

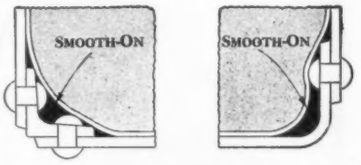
The Ohio Oil Co.'s No. 7 well, 200 feet from the north line and 875 feet from the east line of the Rodney Taylor 58 acres, went to a total depth of 670 feet and was shot with 200 quarts, with an initial production of 200 bbls. There were 610 feet of casing set in this well, sand at from 614 to 667 feet and total depth 670 feet. No. 8 well, 200 feet from the north line and 550 feet from the west line of the same farm, set 632 feet of casing, sand at from 635 to 686 feet and sent to a total depth of 692 feet and given a 180-quart shot was also good for 200 bbls. initial production.

Wood Oil Co. struck another good producer in No. 8 well, 200 feet from the south line and 1,230 feet from the east line of the Mary J. Elmore 100-acre farm, where a string of 632 feet of casing was set, getting pay sand from 632 to 682

55,000-gal. lead-lined steel tank (20 ft. diameter by 25 ft. height) in which 300 lb. of SMOOTH-ON No. 4 were used behind the lead lining to give it a solid backing at all uneven surfaces.

Set lead tank linings with SMOOTH-ON

LEAD-LINED tanks either must have a smooth inside surface as a backing for the lead, or extremely thick lead sheeting must be used to prevent cutting, stretching and breaking of the lining.

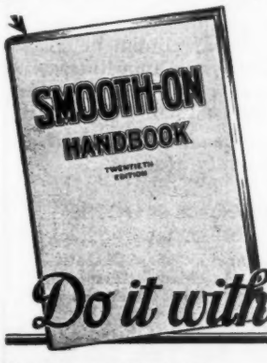


Perfect inside surface for solid backing can be formed by filling over all seams, corners, rivets and rough places with SMOOTH-ON No. 4 and shaping the top of this filling to a contour of easy curvature.

That this is preferable to thicker lining out of contact with the backing at critical locations was typically proven in connection with the steel tank shown herewith. Had the surface in this instance been left rough, lead sheeting of ¼-in. thickness would have been required, whereas the job was actually done by laying a ⅛-in. lining over a surface made with SMOOTH-ON No. 4.

Inasmuch as the cost of lead for linings is almost exactly proportional to its thickness, half the material cost was saved at a comparatively very small outlay for SMOOTH-ON. In addition to this, ⅛-in. lead sheeting could be worked much quicker than the ¼-in. thickness, with a corresponding saving in labor.

SMOOTH-ON is also made suitable for water, oil or gasoline proofing wood, metal or masonry tanks, troughs, pits, sumps, ponds, etc.



Get SMOOTH-ON in 1 or 5-lb. can or 25, 50 or 100-lb. keg. If in doubt which SMOOTH-ON preparation to use, write us direct.

This BOOK FREE

if you mail the coupon

Twentieth Edition—Completely rewritten—136 pages of new data—193 diagrams, pictures and practical hints on at least 200 different uses for SMOOTH-ON. Every progressive engineer should have this book—get your copy NOW.

Do it with SMOOTH-ON

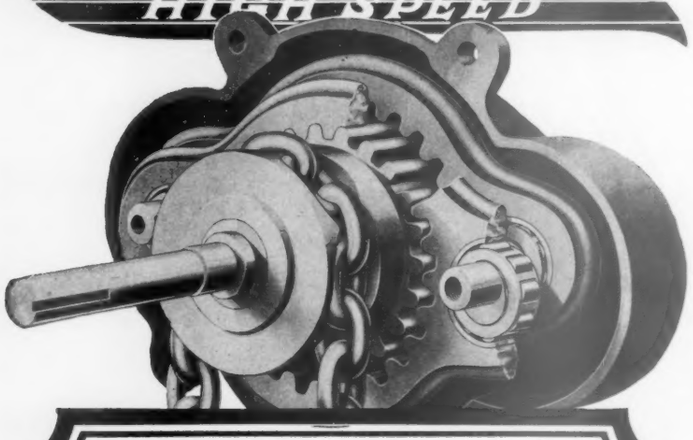
SMOOTH-ON MFG. CO.,
Dept. 66, 570 Communipaw Ave., Jersey City, N. J.
Please send a copy of the SMOOTH-ON Handbook, 20th Edition.

Name .....

Address .....

.....

CYCLONE
HIGH SPEED



The Only Hoist Operating on the GYRATING PRINCIPLE

WHAT is the *gyrating principle* — the exclusive feature which distinguishes Cyclone Hoists from all others? It is the distinctive rotating movement of two yokes which, operated by eccentric shafts, move smoothly into mesh with the powerful lift gear at directly opposite points. More than twice the usual number of lift gear teeth are always in mesh, assuring positive and uniform operation; a minimum of vibration; and exceptionally long life.

Every other detail of Cyclone Hoists is accurately designed to meet the exacting requirements of a high speed hoist of the greatest efficiency.

If you are interested in securing the maximum benefits from your investment in hoists, insist upon "Cyclone" Hoists.

Sold by Leading Oil Well Supply Houses

THE CHISHOLM-MOORE MFG. CO.

Manufacturers of "Cyclone" Hoists, "Matchless" Trolleys, and "Matchless" Derrick Cranes.

Cleveland, Ohio

Branches: New York, Chicago, Pittsburgh

CHISHOLM-MOORE
OVERHEAD HOISTS CRANES TROLLEYS TRACK SYSTEMS

feet and shot with 180 quarts, the first 24 hours' production amounted to 180 bbls.

Sunnydale Field

Word from the Sunnydale Field, on the south side of Rough River, 4 miles southeast of the Ambrose Pool, and also in Ohio County, is having excitement occasioned by the drilling in of a well or so, that while not as large as those in the Ambrose Pool, are sufficiently large by their showings to encourage additional development work. Several new wells are to be started as soon as material can be delivered to the leases. The third well of Doctor Lang and others on the Widow Wilson lease is said to be showing better than No. 2, which was estimated at 60 bbls. initial. No. 1 was reported at 8 bbls., but has a heavy volume of gas. The Wood Oil Co.'s second well on the Buddy Smith farm, same area, is also reported making a good showing.

In the Ambrose Pool, James C. Ellis has Nos. 19 and 20 in the sand and showing as good as the average former wells on the J. R. Weller 110-acre farm, all starting at or better than 100 bbls., there being 18 producing wells already reported.

Near the Midkiff Pool in Ohio County, near the Ralph store, the White Plains Oil & Gas Co.'s second well, 500 feet from the north line and 400 feet from the west line of the C. A. Kelley 64 acres, is showing for a producer, as is the Petroleum Explorations Co.'s second well on the big Claud Farmer farm.

Country—	Area, sq. mi.
United States	3,026,000
Argentina	1,135,000
Belgium	11,000
Canada	3,729,000
Denmark	16,000
France	207,000
Germany	209,000
United Kingdom	121,000
Japan	148,000
Australia	3,063,000

Tennessee

Probably the largest gas well ever drilled in Tennessee is now reported to be producing more than 1,000,000 feet of gas daily after a 30-day test with an open hole. The big well was drilled by John H. McClurkin, Kentucky operator, on the Doctor Tucker farm, on Long Fork Creek, 6 miles west of Red Boiling Springs, in Macon County, southeast of Scottsville, Ky., and west of the Celina oil field, in Clay County, Tennessee, also about 70 miles from Nashville.

This well has an unusual history in that 27 gas sands were encountered in drilling 400 feet, and the tools were blown high into the air five times, and the gas blew out with a roar that could be heard miles distant. In several instances the drillers barely escaped serious injury and the rig was damaged to the extent of several hundred dollars.

The well was originally started in search for oil on a big anticline mapped last winter by Mr. McClurkin, who controls a large block of leases along Long Fork Creek, and who has been very active in developing Clay County's new oil fields.

The fact that so much gas has been found on the structure is thought by oil men to indicate the presence of an extensive oil pool at lower depths, but the high gas pressure seems to justify developing the latter and marketing it in the near-by towns and piping it to Nashville.

Numerous tests of the gas disclose its adaptability for both heating and lighting purposes after its rich gasoline content has been extracted.

Experts from the northern cities have been testing the gas well and pronounce it favorably located for commercial utilization of all the natural gas that might be produced on the anticline, and that by drilling several shallow wells sufficient gas would be available for several thousand customers.

The natural gas industry has been highly developed in Ohio, West Virginia and eastern Kentucky, where it is piped under high pressure to Louisville, Lexington and the Blue Grass section and retailed at 40 to 50 cents a thousand. Many of the pipe lines are from 200 to 300 miles long, some extending as far north as Toledo and Cleveland in Ohio.

A number of eastern gas concerns are understood to have approached Mr. McClurkin with a view of developing this new gas field and piping it to the various cities and towns in Middle Tennessee, but no definite plans have been worked out, the main obstacle seeming to be that he does not wish to abandon his original idea of opening up a new oil pool on Long Fork Creek rather than a natural gas pool. The development of an oil field is quite simple and inexpensive compared with a gas field.

It is said the gas well on the Tucker farm will be drilled some 300 feet deeper in hopes of reaching the oil sands under the Pencil Cave that have proven so productive in the Celina Field, and if this venture is unsuccessful the natural gas will then be conserved and other wells drilled to the gas sands.

TO MEASURE FUTURE GASOLINE CONSUMPTION

(Continued from Page 102)

000 people, may have to go a long way before there is a car to every five persons, which would mean about 6,000,000 cars in all, as against approximately 120,000 in use at preesnt.

A computation of motor vehicle registration as related to area in some of the principal countries of the world follows:

No. cars	Population per car	Cars per sq. mi.	Sq. mi. per car
21,000,000	6	7	..
180,000	54	..	6
100,000	82	9	..
750,000	12	..	5
70,000	56	4	..
750,000	54	4	..
325,000	193	1.5	..
1,000,000	49	8	..
35,000	1,789	..	4
300,000	20	..	10

The foregoing table shows that there are nine cars per square mile in Belgium and eight in the United Kingdom (including Ireland), as against seven in the United States.

OIL WELL DRILLING PERMITS IN TEXAS

AUSTIN, Tex., July 9. — There were 16,238 oil and gas well applications of all classes received by the Railroad Commission during the first six months of this year. Of that number, 5,341 were to drill, 1,476 to shoot, 2,109 to plug, 3,221 producing, 2,054 dry, 1,856 plugged and 181 gas.

The total for June was slightly higher than for May, but much less than the other four months of this year. The June total was 2,319, compared with 2,199 for May, 2,833 for April, 3,216 for March, 2,716 for February and 2,955 for January. As the price of oil dropped, operations were reduced.

The drilling applications by months showed: January, 1,109; February, 1,080; March, 977; April, 815; May, 700, and June, 660. The producers were: January, 608; February, 525; March, 612; April, 616; May, 419, and June, 441.

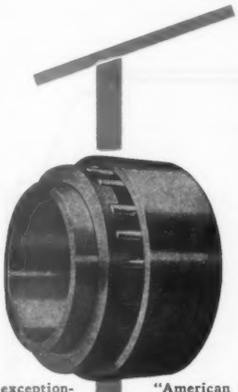
The largest number of applications to drill received during June were from the following counties: Archer 43, Brown 80, Callahan 41, Coleman 15, Crane 18, Cooke 23, Eastland 15, Gray 16, Hutchinson 19, Harris 10, Jack 7, Jefferson 15, Jim Hogg 3, Liberty 4, Montague 19, Milam 8, McMullen 4, Navarro 4, Pecos 11, Shackelford 46, Stephens 13, Upton 10, Wichita 43, Wharton 26, Webb 8, Young 37 and Zapata 3.

Producers were: Archer 23, Atascosa 7, Brown 53, Callahan 19, Coleman 6, Crane 12, Cooke 8, Carson 22, Clay 3, Eastland 7, Fort Bend 6, Gray 6, Hutchinson 58, Harris 7, Hardin 6, Howard 8, Jefferson 14, Liberty 4, Montague 11, Mitchell 5, Milam 6, Shackelford 32, Stephens 5, Upton 15, Wichita 18, Wilbarger, 25, Wheeler 6, Young 11, and Zapata 4.

GEOLOGICAL CONGRESS, 1929

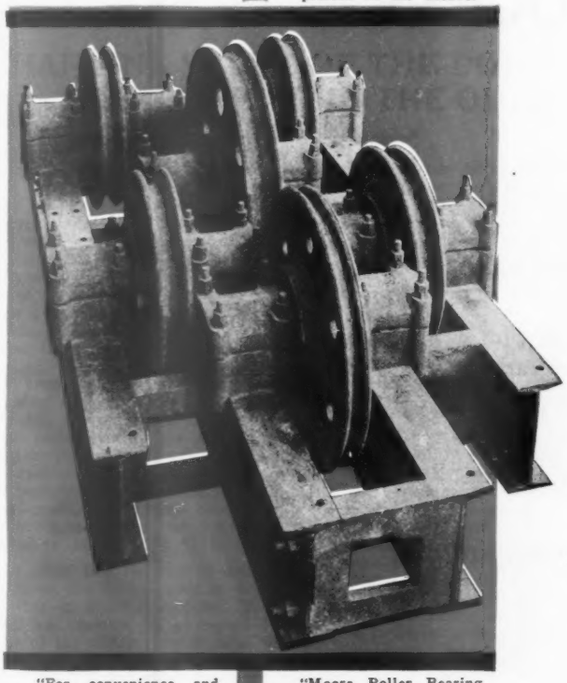
South Africa is to be host to the International Geological Congress in 1929. Correspondence regarding the meeting should be addressed to the Geological Survey of the Union of South Africa, P. O. Box 401, Pretoria.

...and still another oil field leader turns to Better Bearings to Better their Equipment



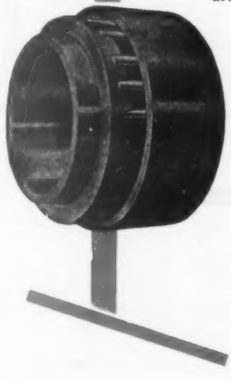
"This is an exceptionally well built and carefully designed crown block. Nothing has been left undone to make it the best on the market. It is a long-life block, and the only attention it requires is occasional oiling."

"American straight roller bearings are used to give that smooth, easy-running action which is so desirable. Their long line of bearing contact makes them ideal for carrying the heavy loads. The bearings operate on hardened and ground races, the inner race being pressed on the cold rolled shaft while the outer race is pressed in the sheave."



"For convenience and effectiveness, the Alemite system of oiling is used. A lubrication groove, cast complete around the inside of the pulley, distributes grease to a number of holes in the outer bearing race in line with the groove."

"Moore Roller Bearing Crown Blocks are furnished with 6 or 7 pulleys, of A.P.I. standard diameters, unless otherwise specified. The pulleys are of manganese steel, assuring long life and ultimate economy. 12" I beams @ 50 lb. are used."



Lee C. Moore & Company

have Standardized

AMERICAN HEAVY DUTY TYPE "C" ROLLER BEARINGS

for their latest designed

Crown Blocks

Again the oil field manufacturer has entrusted to this industry's "*standardized bearing*" almost full responsibility for a piece of machinery designed with a precision, and manufactured with a care, that gives it uncommon merit.

In selecting American Heavy Duty Straight Roller Bearings for this heavy-duty, long-lasting Crown Block, Moore engineers acknowledge two important points. First, they have taken cognizance of the extraordinary fitness and splendid service records of American Roller Bearings for this type of work. Second, they realize the importance of eliminating adjustments to the bearings.

The bearings in this block are non-adjustable, the pulley, shaft and bearing being shipped assembled. The bearings require no attention during the life of the block and any driller who has attempted to make fine adjustments of other type bearings while straddling the block on top of a derrick will tell you why it can't be done—satisfactorily or permanently.

This Moore Crown Block has disposed of bearing burdens and bugaboos, definitely, entirely, and in the best possible way available to any manufacturer of drilling equipment.

Get them in the first place;
Use them to replace plain bearings.

AMERICAN ROLLER BEARING CO.
PITTSBURGH, PENNA.

The Holmes-Manley *Cracking* Process

Flexibility of Operation.

High Yield of Quality Gasoline direct from the Unit.

Fractionation and Condensation under Full Operating Pressure.

High Yield of Liquid Products with a minimum yield of fixed gas and carbon.

Low yield of Residue Fuel Oil of good Quality.

Relatively low Operating Temperatures.

Ease of Control.

Long Runs and High percentage of Operating Time.

Low Labor and Fuel Costs.

Address Inquiries to

THE TEXAS COMPANY

W. S. S. RODGERS

17 Battery Place, New York, N. Y.

Branch Office

816 Palace Building, Tulsa, Okla.

ATLANTIC COAST PORT RECEIPTS INCREASE DURING MONTH OF JUNE

By N. O. Fanning

New York Bureau, The Oil and Gas Journal, Room 629, No. 101 Park Avenue, New York, N. Y.

NEW YORK, July 9.—Receipts of crude and refined oil at Atlantic Coast ports for the month of June are estimated at 18,487,000 bbls., a daily average of 611,000 bbls., compared with a total of 16,575,000 bbls., and daily average of 534,000 bbls., in May of this year. In June, 1926, receipts were a record not since equalled, amounting to 19,196,000 bbls., or a daily average of 635,000 bbls.

The feature of the June receipts of this year was a gain in receipts from the Port Arthur district of Texas and from California. The former amounted to 5,474,000 bbls., a daily average of 180,000 bbls. Receipts from California totaled 3,548,000 bbls. and averaged 118,000 bbls. a day. The California receipts show a gain in June of 1,747,000 bbls., of 97 per cent, over May.

Imports in June fell off as compared both with May of this year and June of 1926, due to falling off in takings from Mexico. Imports from South America showed a decline from the May figures, but an increase over June of last year.

The following table shows total and daily average estimated receipts of crude and refined oil by water at Atlantic Coast ports for June and May of this year and June of last year (figures in barrels):

	June,'27	May,'27	June,'26
Baton Rouge and New Orleans	1,144,000	1,222,000	2,477,000
Port Arthur, Sabine and Beaumont	5,474,000	4,461,000	4,756,000
Houston, Texas City and Galveston	4,862,000	4,646,000	4,691,000
Gulf Coast	11,480,000	10,329,000	11,924,000
Pacific Coast	3,548,000	1,801,000	3,158,000
Mexico	2,034,000	2,793,000	3,546,000
So. America	1,426,000	1,652,000	568,000
Total	18,488,00	16,576,000	19,196,000
Daily Averages			
Baton Rouge and New Orleans	36,000	38,000	82,000
Port Arthur, Sabine and Beaumont	180,000	144,000	158,000
Houston, Texas City and Galveston	162,000	150,000	156,000
Gulf Coast	378,000	332,000	396,000
Pacific Coast	118,000	58,000	104,000
Mexico	68,000	91,000	117,000
So. America	47,000	53,000	18,000
Total	611,000	534,000	635,000

Receipts from the Houston district show a steady increase, the daily average being 162,000 bbls. in June, as against 150,000 bbls. in May and 158,000 in June, 1926. Baton Rouge shows a marked falling off as compared with a year ago.

CHANGING VALUE OF THE DOLLAR IMPORTANT IN THE OIL BUSINESS

By Arthur Knapp*

In considering costs, prices, or profits over a long period of time, it is necessary to take into consideration the changing value of the dollar. The changing value occurs both within and without any industry. In the case of the petroleum industry, there are a large number of varying values to deal with, which have a great deal of influence on the operation of the industry. For instance, increase in the gravity of the average pipe line oil during the past five years has brought about an increase in the value of the dollar spent on production that has no connection with the general crude price level, or the cost of drilling. Suppose that the field price of crude and the cost of drilling had not changed in the past five years, the value of the average production of those companies having widespread operations would have advanced in the ratio of $1 to $1.35.

To offset this the cost of drilling has increased, due to increases in wages and the cost of drilling supplies, the latter being an example of a change in the value of the dollar from without the industry. The average depth of wells has increased, which means increased cost. New methods of production have been introduced which add to the cost of bringing the oil to the surface. All of these factors have served to decrease the value of the dollar spent to find and produce oil in proportion to the barrels produced.

Since the average pipe line oil has increased in gravity, it follows that the stored oil has increased in gravity. This means that the dollar invested in oil to store has not brought in as large a volume of oil and that the carrying charges per barrel are larger than formerly because of the increased value of the oil per barrel.

This change in the value of the oil-producing dollar does not seem to have been taken into account in the recent cuts in crude prices. A certain decrease in field prices is necessary in order to curtail drilling. A cut of 25 cents today would probably have as much influence as a cut of 50 cents five years ago. The recent cuts in crude have been so drastic as to threaten to disrupt the producing business. The chances are that they will have to be raised in the near future to a point where normal production can be undertaken at least at cost, rather than at a decided loss.

The refiners' dollar has also undergone changes. In the purchase of crude, the refiners' dollar of 1923 became 74 cents in 1926. On the other hand, his income per barrel run to stills has increased in the ratio of $1 to $1.32 during the same period. This is a slight gain in favor of the income dollar, the ratio being 74 cents for crude cost to 76 cents for refined products selling price. This ratio does not show the increased refinery profits which have accrued from better refinery efficiency. This is where the refiner has made the greatest advance and profits during the past year or two.

This changing value of the dollar means that executives in the petroleum industry must study and know enough of economics to be able to judge of its effects on the policies of their companies. Business judgment will help in the formation of policies, once the economic facts are known, but the facts must first be gathered as concrete data and not as impressions or guesses.

*In "Mining and Metallurgy."

GASOLINE DISPLACES HORSE

Every year 1,000,000 horses vanish forever from America's farms. Horse production in this country is now back where it was in 1895 but there are 339,789 more motor trucks on farms than there were in 1920. Last year the farmers raised only 500,000 colts against 1,500,000 three years ago. From an average price of about $98 a head in 1918, horses dropped to an average price of $63 in 1925. The American farmer has discovered that the horse costs more the less it is employed while the truck costs less the more it is employed.

OIL LAWS FOR CHILE

The Royal Dutch, the Mexican Eagle Companies, the Standard Oil Co. and the Pan American Oil Co. are apparently interested in taking up petroleum concessions in the south of Chile. There being no legislation at present governing the exploitation and exploration of petroleum in Chile a law is under study and will regularize the granting and operating of concessions; this legislation should be effective in a very short time.

EDWARD VALVES

"forged steel" for refinery service—

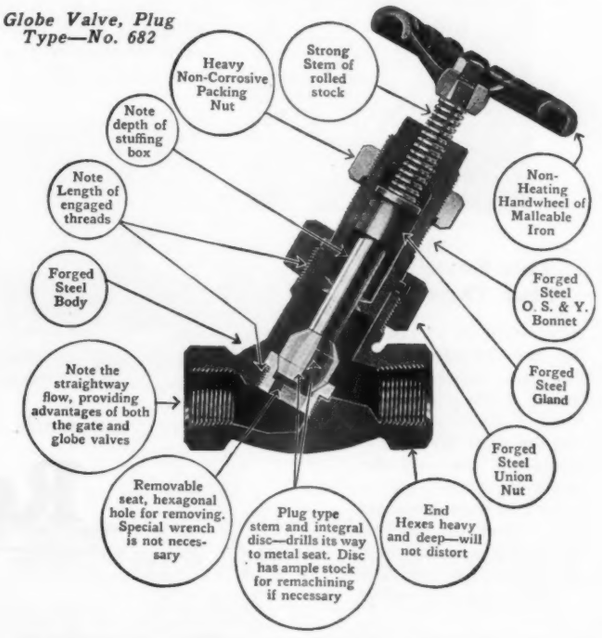
—are designed and constructed to not only meet but to exceed peak pressures and extreme emergencies possible in all refineries—*a wide safety margin.* Edward *Forged Steel* Valves are built for specific performances — their design and construction proves it—*they best fit your requirements.* This is why refinery engineers who want dependable trouble-free service *standardize* on Edward *Forged Steel* Valves.

Built in both Globe and Angle pattern and in sizes from ¼" to 2" inclusive. Also built "all steel trimmed" for handling sulphur-content oil.

Priced remarkably low because of their quantity production. Prompt shipment—stock carried at central points in the oil field.

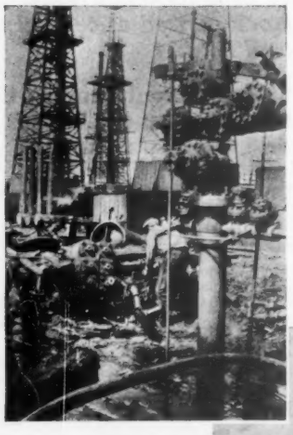
The Edward Valve & Manufacturing Co.
Main Office and Works—East Chicago, Ind.
Maintenance Engr. Corp., 1802 Conti St., Houston, Tex.
Chapman Valve Mfg. Co., P. O. Box 974, Tulsa, Okla.

Globe Valve, Plug Type—No. 682


Heavy Non-Corrosive Packing Nut
Strong Stem of rolled stock
Note depth of stuffing box
Note Length of engaged threads
Non-Heating Handwheel of Malleable Iron
Forged Steel Body
Forged Steel O. S. & Y. Bonnet
Note the straightway flow, providing advantages of both the gate and globe valves
Forged Steel Gland
Forged Steel Union Nut
Removable seat, hexagonal hole for removing. Special wrench is not necessary
Plug type stem and integral disc—drills its way to metal seat. Disc has ample stock for remachining if necessary
End Hexes heavy and deep—will not distort

Write for special refinery valve catalog

Alamitos Field Saved by Regan Control Heads



WHEN fire struck Alamitos Heights a few days ago the only two producing wells in this particular area were fortunately equipped with Regan Control Heads. The fire raged unabated for 20 hours, subjecting the Heads to the most intense heat, turning them "red hot."

As soon as the devastating fire was conquered the Heads were found to be holding as securely as before.

If these two producing wells had not been equipped with Regan Control Heads they would have blown wild and probably would have destroyed the field.

This Hook-Up Went Thru Hell

After 20 hours of red hot fire the Christmas Tree was still intact and the Regan Tubing Head and Control Head were holding the high pressure on the inside. The only damage was two valves broken by falling machinery. After the fire was extinguished mud was pumped in thru the Tubing to kill the well.

Fire Only Buckled the Casing

This photo of the second producing well shows the "scars" of the 20-hour fire. The heat was so intense that the 8¼" casing directly beneath the Regan Control Head folded up under the Christmas Tree's weight---but the Head was undamaged. All Alamitos Field men agree that its performance was amazing.

Insure your wells with Regan Control Heads.

Regan

Forge & Engineering Co.

San Pedro California

Houston, Texas 1521 Post Dispatch Bldg.

Oklahoma City, Okla. 531 W. Main St.

New York City 75 West St. Wm. Braat, Manager

Maracaibo, Venezuela Wm. Adams, care Amer. Consul

EASTERN FIELDS

(Continued from Page 60)

In McClelland district, Doddridge County, Godfrey L. Cabot has the rig completed and started to drill on the Dora McDonald farm. In DeKalb district, Gilmer County, the Philadelphia Co. has started to drill on the D. Stalnaker farm. In Lee district, Calhoun County, H. J. Simmons has a rig up on the Len Powell farm.

Cabell County

On Mud River, one-half mile north of Balls Gap, Grant district, Cabell County, the Monickel Gas Co. has completed and shot in the Berea grit its second test on the Lemuel Rucker farm. It is a gasser good for 180,000 feet. On the same river and same locality, the same company has the rig completed and started to drill a test on the B. L. Roberts farm.

On Big Two Mile Creek, Grant district, the Big Two Mile Gas Co. has completed and shot in the Berea grit a test on the J. H. Harshbarger farm. It is a fair gasser. On Charleys Creek, same district, the Aetna Oil & Gas Co. has drilled No. 4 on the John Davidson farm from the salt sand to the Berea grit. It is a light gasser in the lower formation.

On Robison Run of Big Paw Paw district, Marion County, Victor Tennant has completed in the Little Dunkard sand at 737 feet, a test on the Homer Amos farm. It is a gasser good for 1,000,000 feet. In Lee district, Calhoun County, Martin Crawley has started to drill a test on the Matietta George farm. In Sherman district, the Valley Gas Co. has a rig up on the Hannah Osborne farm. In DeKalb district, Gilmer County, the Philadelphia Gas Co. is rigging up on the Delbert Stalnaker farm.

On Pine Fork, Grant district, Wetzel County, the South Penn Oil Co. has drilled old No. 28 on the B. W. Peterson farm from the Big Injun to the Gordon sand. It is an 8-bbl. pumper in the lower formation.

Starting Tests

In Murphy district, Ritchie County, the Cairo Oil Co. is rigging up at a test on the Jacob Dougherty farm. In McElroy district, Tyler County, the Colonial Oil Co. has made a location on the Osborne Allen farm. In West Union district, Doddridge County, the Clifton Oil & Gas Co. has shut down at 1,965 feet on the T. A. Smith farm. It looks like a dry hole in the Big Injun sand. In Union district, Tyler County, J. B. Long & Co. have started to drill on the Anna Hanes farm.

Southwest Pennsylvania

In McCandless Township, Allegheny County, the Hiland Oil & Gas Co. has a gasser at a test on the Ringheisen farm. In the same township, the Duff City Gas Co. has a gasser in the boulder at a test on the Holman farm, and a rig up on the Aultmyer farm. In Hanover Township, Beaver County, Hobbs & Co. are drilling a test on the Tilden Roche farm. At Darlington, Beaver County, W. W. Holt's test, on the Jacobs-Gardner farm, is a very light pumper.

In Morris Township, Greene County, the Consumers Fuel Co.'s No. 4, on the James S. Rutan farm, is holding up remarkably well. It was drilled in some weeks ago and is still holding up at 90 bbls. a day.

The Carnegie Natural Gas Co.'s test, on the A. H. Johns farm, is a 500,000-foot gasser, located in Perry Township, Greene County. In Whitley Township, the same company's No. 3, on the C. J. Morris farm, is a gasser good for 500,000 feet. In Perry Township, the Philadelphia Gas Co.'s test, on the R. F. Johns farm, is a fair gasser in the Gordon sand.

In Dunkard Township, Greene County, the Greensboro Gas Co. has a good gasser in the gas sand at a test on the R. Lynch farm. In Perry Township, Fay Headlee, trustee, has completed No. 3 on the C. H. Lemley heris' farm. It is a gasser in the Big Injun sand good for 500,000 feet. For 24 hours the Consumers Fuel Co.'s No. 4, on the James S. Rutan farm, produced 100 bbls.

In Morris Township, Greene County, the Manufacturers Light & Heat Co. has a duster at a test on the Mary and Robert Inghram farm.

MICHIGAN FIELDS

(Continued from Page 60)

the Saginaw Field proper. This well struck the top of the Dundee at 2,515 feet, had first showing of oil at 2,550 feet and drilled 90 feet in the Dundee to a total depth of 2,640 feet. The oil showing proved small and its abandonment is ordered by the company.

New Completions

Wickes Brothers' No. 1, on their property on the east side of the Saginaw River, near the foot of Carroll Street, topped the Berea sand at 1,810 feet, went 21 feet in the sand and shot with 80 quarts, after which the first swabbing netted 35 bbls.

Superior Oil Co.'s No. 1, on the John King property on the south side of Weiss Street, east of Eddy Street, is estimated showing for 20 bbls. initially, and No. 2 is starting on the same property.

William M. Bradley & Son's No. 1, on the Henning Sausage Co.'s property on the east side of the river at the foot of Fitzhugh Street, went 21 feet in the sand, was shot with 80 quarts and is showing for 25 bbls. initially.

The Schusta company's No. 1, on its own property at the foot of Irving Avenue, topped the Berea sand at 1,820 feet, drilled 18 feet in the sand and shot with 60 quarts, is said to be good for 25 bbls.

The Saginaw Prospecting Co.'s No. 1, on the Eddy estate on the east side of the river at the foot of Fitzhugh Street, tapped the sand at 1,810 feet, drilled 21 feet in the sand and shot with 80 quarts, is reported at 25 bbls. Same company's No. 4, on the J. C. Brechtelsbauer property on the Shattuck Road, northeast of Hermansau Road, got the top of the sand at 1,814 feet and drilled 19 feet in the sand and was shot with 80 quarts. The well is estimated at 20 bbls. initially.

The Sun Oil Co.'s No. 4, on the John Stelzreide farm, Section 11, Saginaw Township, north of the city, struck top of the sand at 1,825 feet, went 16 feet in the sand to a total depth of 1,841 feet and shot with 60 quarts, is an average initial producer of 20 bbls.

Field Pickups

James McColgan is putting in a rig for a well on the Colgan property on North Water Street, just north of the Johnson Street bridge.

The Saginaw Prospecting Co. is going along nicely with the drill at No. 2 on the Eddy estate on Davenport Street near the Pere Marquette Railroad, and starting a derrick for No. 3 on the same property north of Davenport Street. Same company is near the sand at No. 4 on the Northmoor Subdivision and getting in a rig for No. 5.

The Wolohan Petroleum Co. passed through the Saginaw sand at 2,000½ feet at a second test on the Courtney farm, and is now on its way to the Dundee sand. The bottom of the Berea sand in this well was 1,550 feet and dry and the Saginaw sand also failed to show any signs of oil, and at last report had reached a depth close to 2,300 feet. This well is in Birch Run Township.

Superior Oil Co.'s No. 4, on the Spatz property on Weiss Street, is due in the sand within a few days.

Bliss Petroleum Co. has recovered the tools lost in No. 2 Fred Engle farm well in the Dundee sand and is now cleaning out, and when put on the pump something more will be known of its value as a producer.

Morley Brothers' well, on their property on the river bank, between Federal and Genesee Avenues, has swabbed an average of about 25 bbls. a day since its completion last week.

The Michigan Petroleum Co.'s well, on the Rogner farm, on the King Road, at 60 feet in the Dundee sand failed to make any showing. The top of Dundee was found at 2,898 feet, an even 600 feet below the top of the Saginaw sand in the same hole, which was also dry as well as the Berea higher up.

What Happens?

When Your Machinery Starts and Stops

Much of the wear and tear on machinery comes from starting and stopping. For then the fluid film of lubrication is broken, *and unless you are using the right lubricant,* friction takes a heavy toll.

As long as the fluid film is intact, the quality of the lubricant is not so important—but when the fluid film breaks, as it does every time you start and stop a machine—the quality of the lubricant supplied to the bearings is of prime importance, if friction is to be kept from doing serious damage.

After exhaustive tests, scientists in our laboratories developed Humble Oils, which retain the proper viscosity and hold their fluid film at the operating temperatures produced by high speeds. And, in addition, Humble Oils have that all-important quality—the ability to leave a semi-plastic, adsorbed, protective film on the surface of the metal, after the fluid film is broken. This quality in Humble Oils prevents excess abrasion during periods of partial lubrication, which is specially important with bearings, like those of line shafts, countershafts and machine tools, which are started and stopped frequently and are often subjected to peak loads.

Reg. U. S. Pat. Off.

HUMBLE OIL & REFINING CO. HUMBLE OILS HOUSTON, TEXAS

There is a Humble Oil which is specially prepared to meet every bearing need in your plant, your trucks or your automobile.

Humble Oil & Refining Co.
HOUSTON, TEXAS
Producers - Pipe Lines - Refiners - Marketers

TRIBLOC *Chain Hoists*

Cost more to make
Cost less to use !

This hand chain Guide is always painted GREEN

IT is always painted GREEN for two reasons.

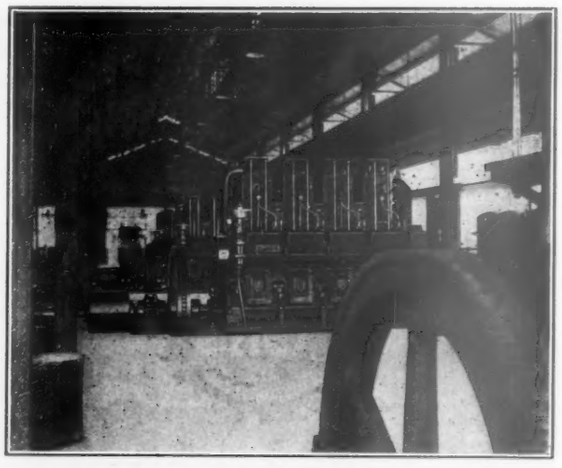
One is that it identifies a chain hoist unequaled for long, hard service on almost any sort of a job. Another reason is that it indicates what is probably the most important protective feature of any chain hoist made—the LOOP HAND CHAIN GUIDE.

This Guide, owned and used by ourselves and licensed for use on but few other chain hoists, is the only Guide that absolutely controls the hand chain while in motion. It prevents the hand chain from buckling or "gagging" in the guide—whether operated at the point of hoisting or at an angle from the hoist.

It has many other advantages about which we should like to tell you. Send for Catalog 7-B.

FORD CHAIN BLOCK COMPANY
Second and Diamond Sts., Philadelphia, Pa.

De La Vergne



Four 260 H.P. De La Vergne Vertical Diesel Engines,—recently sold to Andian National Corp., for pipe line pumping, in Mamonal Sta., Colombia, S. A.

Write for Bulletins

De La Vergne Machine Company
920 East 138th St., New York, N. Y.

Also Manufacturers of Ice Making and Refrigerating Machines

CANADIAN SUGGESTS CENTERING EFFORTS ON PROVEN OIL FIELDS

By W. A. Douglass
Edmonton, Alberta

Canada today is importing 95 per cent of the crude oil that is being refined by the major companies operating refineries within the Dominion. In the majority of cases these companies are in the distributing and marketing business also, and were before oil was discovered in Western Canada. So naturally, to meet the increasing consumption requirements, they were compelled to seek a crude supply where it could be purchased at the minimum cost.

At that time Mexico and South America were becoming factors in the oil producing countries of the world, and owing to the small percentage of domestic consumption, offered a fertile field for exporters of crude oil. Thus the major refining companies, especially those operating in Canada, seeing new pools being opened in those countries offering, what at that time looked like an unlimited supply of crude, must necessarily build pipe lines to transport the oil from the fields, storage facilities at the ports of loading, and build and maintain fleets of tank ships to carry the oil from the ports of loading to the east and west coasts of Canada where the largest refineries are located. All of which, while starting out in a small way, has steadily grown until today it represents a capital expenditure of millions of dollars.

After the crude from this source is refined the finished product must necessarily be shipped by rail to all parts of the Dominion for consumption.

In addition to the gasoline derived from the crude refined on the seaboard the oil companies in the marketing business, as well as the major refining companies, must import at least 50 per cent of the gasoline consumed in Canada today in order to supply the demand. This 50 per cent is imported from the United States, being the largest producer and exporter of petroleum and petroleum products in the world today, which necessitates a water and rail haul from California by three of the five companies operating in Western Canada, and a continuous rail haul from the Mid-Continent and eastern United States refineries for the remaining two.

Duty on Refined Products

Crude oil is admitted under our custom laws duty free, refined products are subject to duty, the higher the quality of the product, the higher the duty. This duty, added to a first class freight rate and insurance on gasoline, based on a rail haul of from 500 to 1,500 miles south of the international border, must necessarily be added to the purchase price, which must also include the local distributing cost.

Naturally an imported product, in most cases, costs more than a domestic product, therefore the oil companies who distribute and market refined products in Canada find themselves in a pecular situation. They have millions invested in foreign concessions, transportation and refining units, the products of which are distributed and marketed in this country together with the domestic products, but the price obtained for the domestic products must be equal to that received for the imported products, therefore they could not long survive a price reduction on the imported products in proportion to the cost of producing, refining and marketing the domestic products. This condition places these companies in a position where, in the event of Canada taking her place among the oil producing countries of the world as she should, they would be compelled to reconstruct their entire transportation, refining and marketing fabric, or be compelled to discontinue business in competition with companies producing, refining and marketing a domestic crude.

Oil and Grease Market

In addition to the millions of gallons of gasoline being imported annually, we have still another by-product of which the refineries in Canada produce a very small per cent of the volume consumed, and which constitutes one of our principal imports, namely; lubricating oils and greases. The present Canadian market for these products is so great as to invite English refiners of these products to enter the field in competition with the Canadian and American refiners. Two of these firms are established and doing business in Western Canada. The crude oil from which these firms refine their lubricating oils and greases comes from Russia and Rumania, and must be shipped to England and refined, then across the Atlantic, through the Panama Canal and up the Pacific Coast to Vancouver for distribution in Western Canada.

The same condition applies to American oils and greases refined on the Atlantic, Gulf and Pacific Coasts, from Pennsylvania, Venezuela, Mexico, Texas and California crude oils.

Producing Area

We have in the Wainwright Field, east of Edmonton, an oil that contains according to tests by the Department of Mines at Ottawa, over 45 per cent (lubricating oil and greases). This oil also contains over 50 per cent gasoline according to tests made by the Kansas City testing laboratories.

This field has been definitely proven by the drilling of some 15 wells over several square miles of territory, none of which failed to find production when they reached the oil sands. That does not mean that these wells are all producers, but might have been, had they been properly brought in. A refinery has been built to handle the production from this field which will, no doubt, relieve the shut-in condition now existing and stimulate activity in the field. In the Ribstone area now being prospected, we have another potential field several square miles in extent.

Geologists claim there is a possible continuation of the above-mentioned fields, which are located near the Alberta-Saskatchewan boundary, for nearly 200 miles in the southeasterly direction in Saskatchewan. This theory has been partly proven by the discovery of oil at several points in that Province.

In the Pouce Coupe, Peace River and Fort Norman areas, where several of the big companies have extensive holdings, enough development work has been done to definitely prove the potential possibilities of those areas, but owing to their distance from market and lack of transportation facilities it will, no doubt, be some time before they are developed.

Turner Valley, in southern Alberta, holds the spotlight at present, where the Royalite Oil Co.'s No. 4 well, a "wet gasser," has been producing naphtha in excess of 500 bbls. per day for over two years. There are some 25 wells drilling in this field. Most of the field is owned or controlled by big companies.

Diverting Development

There have been several new structures mapped out recently in southern Alberta, which tends to divert development from the proven fields, the geological crews are busily engaged in many parts of Alberta and Saskatchewan, mapping out still more fields.

It would appear to the writer that, if it were possible to restrict the mapping out of new structures for a few years, or until such time as the productiveness of the proven fields has been determined, it would tend to concentrate development in the proven fields and possibly be of more benefit to the users of petroleum products. As it is today, development is scattered over several fields, the extent of which is unknown, and with our small population and lack of capital interest, causes the importation of petroleum products as was previously explained in this article.

Buffalo

Bolivar, N.Y.
May 10th, 1927.

Buffalo Gas. Motor Co.,
Buffalo,N.Y.

Gentlemen:

Enclosed please find order for one drilling engine complete. This makes my fourth drilling engine and they are all very satisfactory in every way.

Enclosed you will find some snapshots taken of one of the engines and crew that worked with this engine when they were setting it up for the 54th well. This engine has now completed 56 wells. This engine drilled 50 wells and cleaned out one, in one week less than two years.

Yours for constant service,

Percy M Jordan

50 Wells Drilled in Less than Two Years

"This engine drilled 50 wells and cleaned out one, in one week less than two years," says Percy M. Jordan, Bolivar, N. Y., concerning the work of his Buffalo Drilling Unit.

Mr. Jordan's letter also contains an order for another Buffalo outfit—the best proof of his complete satisfaction. Similar endorsements are coming constantly from other Buffalo users in the Kansas, Texas and Pennsylvania fields.

The Buffalo Drilling Unit is built in two sizes. Write for prices and full information.

PLENTY OF POWER

All in one unit—a strong steel frame, easy to move, easy to set up—saves from $40.00 to $100.00 per well in moving cost.
Low fuel cost—it operates on natural gas or gasolene.
Uses approximately one-half barrel of water per day.

BUFFALO GASOLENE MOTOR COMPANY

1282-1292 NIAGARA ST., BUFFALO, N. Y.

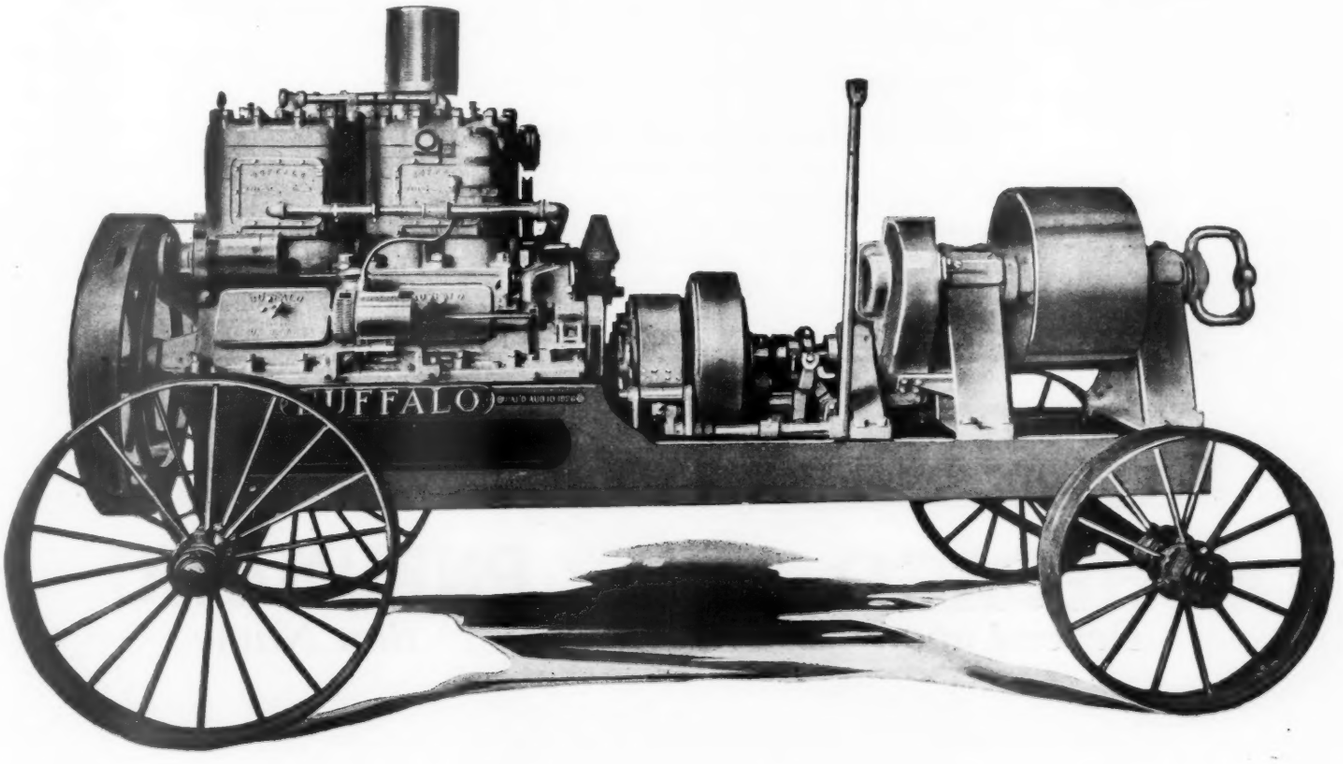
R. H. SHIELDS, Western Distributor
EL DORADO, KANSAS
MIDLAND, TEXAS

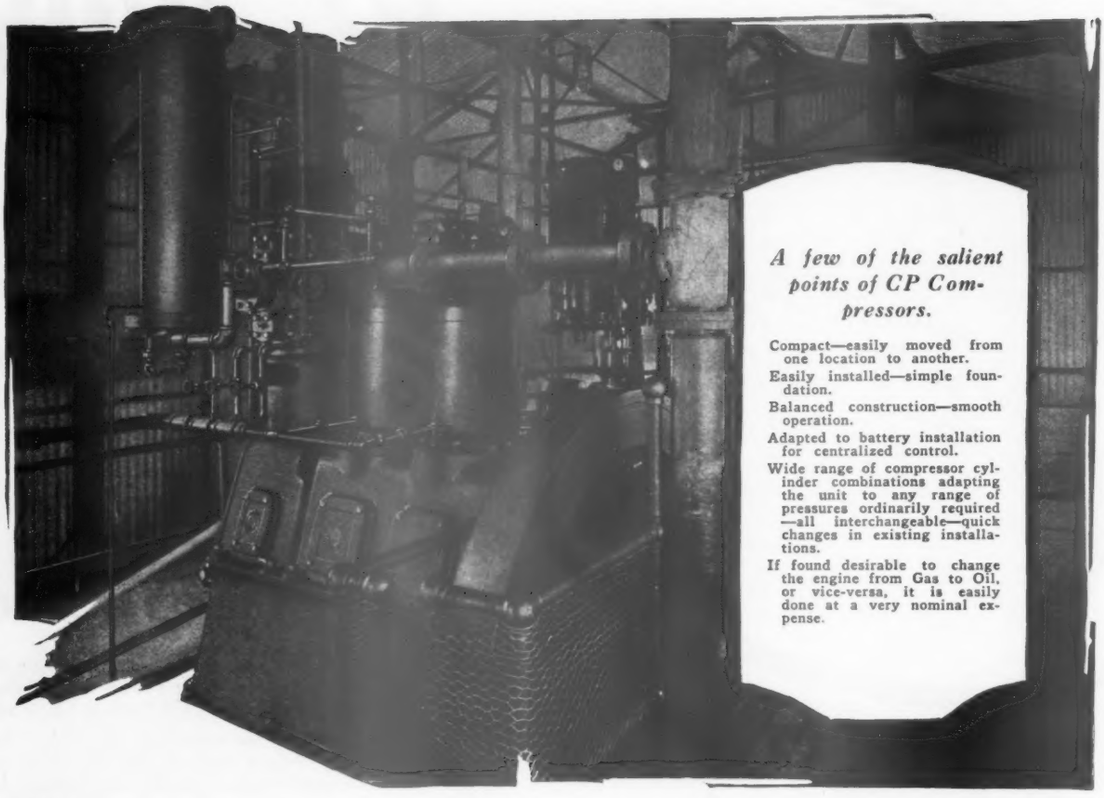
McCAMEY, TEXAS
ABILENE, TEXAS

R. R. RECK
BRADFORD, PENNA.

PARKERSBURG RIG & REEL CO.
PARKERSBURG, W. VA.

THE PRICHARD SUPPLY CO.
MANNINGTON, W. VA.
WAYNESBURG, PA.




A few of the salient points of CP Compressors.
Compact—easily moved from one location to another.
Easily installed—simple foundation.
Balanced construction—smooth operation.
Adapted to battery installation for centralized control.
Wide range of compressor cylinder combinations adapting the unit to any range of pressures ordinarily required—all interchangeable—quick changes in existing installations.
If found desirable to change the engine from Gas to Oil, or vice-versa, it is easily done at a very nominal expense.

CP Vertical Gas Engine Driven Air Compressor Class V-CTG

THE above illustration shows two CP Four-Cycle Vertical Gas Engine Driven Two-Stage Air Compressors, Class V-CTG, employed in the flowing of oil wells in a Mid-Continent field. This unit is ideally adapted to oil field work. It is compact, rugged and easily installed. The compressor is CP standard design, equipped with Simplate Flat Disc Valves.

There is a large variety of interchangeable cylinder sizes carried in stock at a convenient point near you. This affords protection to CP equipment users, under the constantly changing operating pressure demands.

CP Gas Engine Driven Compressors can be furnished in sizes from 90 to 180 horse-power. Are also available in the solid injection Diesel Engine driven types.

Address the nearest branch or dealer for fully detailed specifications.

Chicago Pneumatic Tool Company

6 East 44th Street, NEW YORK, N. Y.

Whealton & Townsend, Inc., *Authorized Distributors*

Higgins Bldg., Los Angeles — 120 East Brady St., Tulsa — 210 So. Jefferson St., Dallas — 1415 Fannin St., Houston

*Sales and *Service Branches all over the World*

*Birmingham	*Cleveland	Houston	*New York	*San Francisco	*Berlin	Calcutta	Helsingfors	*London	Moncton	*Paris	*Sao Paulo	Timmins
*Boston	Dallas	Knoxville	*Philadelphia	*Seattle	Bogota	Copenhagen	Honolulu	Madrid	*Montevideo	Ponce	Seoul	Tokyo
Buffalo	Denver	*Los Angeles	*Pittsburgh	*St. Louis	*Bombay	Dairen	*Johannesburg	Manila	*Montreal	Rio de Janeiro	Stockholm	*Toronto
*Chicago	*Detroit	*Minneapolis	Richmond	Tulsa	*Brussels	*Durban	Kobe	*Mexico City	Osaka	*Rotterdam	Sydney	*Vancouver
*Cincinnati	El Paso	*New Orleans	Salt Lake City	Athens	*Buenos Aires	*Havana	Lima	*Milan	Oslo	Santiago	Tampico	*Winnipeg

Canadian Pneumatic Tool Company, Ltd., Montreal, manufacturers of Chicago Pneumatic products in Canada
Consolidated Pneumatic Tool Company, Ltd., London, manufacturers of Chicago Pneumatic products in England

M-6

CHICAGO PNEUMATIC AIR COMPRESSORS • BOYER PNEUMATIC HAMMERS • ROCK AND COAL DRILLS • CONDENSERS
LITTLE GIANT PNEUMATIC AND ELECTRIC TOOLS • GIANT OIL AND GAS ENGINES • VACUUM PUMPS • OIL BURNERS
PAINT SPRAYERS • TOOL BALANCERS — PNEUMATIC HOISTS • SAND BLASTERS

CHICAGO PNEUMATIC

Depend upon — *that Name*

CANADIAN FIELDS

(Continued from Page 53)

are carried and word that radio reception was perfect and that the party is in good shape and is receiving messages regularly has just reached Edmonton via Hudson's Hope, an Indian runner having arrived there with a letter several weeks ago.

In the Pigeon Lake district west of Wetaskiwin, in central Alberta, the Claresholm Oil Co. of Claresholm, Alberta, is taking over 6,000 acres and an unfinished test of the Globe Drilling Co. of Edmonton. This test in Section 14-47-27w4 was started several years ago by the Mutual Oil & Gas Co., the acreage being featured by mud volcanoes and surface seepages of gas. The test started with a 14-inch hole, but has been shut down for two years at approximately 1,200 feet, after striking a fair flow of gas. The Claresholm company will finish the test; after which some wildcatting will be done in the Claresholm district.

British Columbia

In British Columbia, it is reported that the B. C. Oil & Development Co. is planning to shoot its well in the Sage Creek district. The test is down about 3,215 feet with a show of light oil, estimated about 50 bbls. a day.

In Saskatchewan, the Marren-Lloydminster Oil Co. has a derrick up for a test on the Charles Marren farm, on the Saskatchewan end of the Ribstone-Blackfoot structure. In the Simpson district, the Simpson Oil Co.'s No. 1, Section 9-29-25w2, is reported to have struck an asphalt bed with a small flow of gas at comparatively shallow depth. Drilling is being continued. A Regina, Saskatchewan, syndicate is being organized to drill a test in the Simpson area this summer.

Ontario Fields

In the Ontario Fields, Union Natural Gas Co.'s No. 16 has started drilling. This test is triangulated south of Nos. 13 and 14, being in east half of Lot 24, Concession 9, Dawn Township. An outfit is being moved in for Union No. 17, east of No. 15, in Lot 24, Concession 10, Dawn Township.

In the Tilbury Field, Union Natural Gas Co.'s No. 269, George Jackson farm, in Romney Township, near Port Alma, has been finished as a small gasser in the Tilbury sand. Union No. 270 is being started on the Robert Coatsworth farm, Lot 182 Talbot Road, Romney Township.

In Perth County, a syndicate of St. Mary's and Toronto men is drilling a test of the Trenton limestone near St. Mary's. Dave Laur has the contract.

LOUISIANA-ARKANSAS

(Continued from Page 46)

years of drilling to locate the production.

Pleasant Hill Field

Arkansas Fuel Oil Corp. has three more wells in the Pleasant Hill Field of northern Sabine Parish, and Magnolia Petroleum Co. has what looks like a 5-mile extensioner to the north in DeSoto Parish. The latter is the No. 1 Logan, Section 17-10-12, which all week has been standing full of oil while 2½-inch tubing was being set. Late Saturday it was reported to have started flowing at the rate of 80 bbls. a day. This was not verified. Production is from a broken formation at 3,159-73 feet.

If the Magnolia well makes a good producer, a better light may be thrown on the Pleasant Hill Field as this district has lost much of its favor the past month or so because of the rapid decline in production of the wells completed.

The Arkansas Fuel Oil Co.'s latest well in the main pool of Section 33-10-12, Sabine Parish, also showed up better than other recent wells completed. This well is reported to have flowed 65 bbls. in 12 hours Saturday. It is the first one to be drilled in with cable tools. The two other wells completed by the Arkansas company during the week were small, each flowing 15 bbls. daily through 2-inch tubing. They were the No. 1 Williams and the No. 8 Logan, Section 33.

The Ohio Oil Co.'s No. 1 Crain, Section 1-17-14, northeastern Union County, Arkansas, still is holding up in production, having been flowing from 47 to 50 bbls. daily for three weeks. However, the possibilities of this wildcat territory east of the East El Dorado Field will be determined better by the second well being drilled there. This is the Ohio's No. 1 Pumphrey, same section, which is down 2,370 feet.

Gas Fields Getting Play

Interest in gas development still continues to be one of the features of the Arkansas-North Louisiana district and play is being given gas fields and prospective gas acreage, principally in northwest Louisiana. Considerable drilling activity is being shown in Carterville, northern Bossier Parish, and in the Waskom and Greenwood districts of Caddo Parish since recent completions of good wells there and stimulated by competition among gas buyers, including the Magnolia Gas Co., the Dixie Gas & Utilities Co., the Arkansas Natural Gas Co. and the Northwest Louisiana Gas Co.

In the Carterville area, the Magnolia Gas Co. has just closed several important deals, among which is the purchase of the gas rights of the Humble Oil & Refining Co. on the Mays lease in Section 22-23-12, and has contracted with Woodley & Collins and the Atlantic Oil Producing Co. to buy gas on a graduated scale of 4¼ to 4¾ cents per 1,000 feet on a three-year contract. Woodley & Collins, pioneers in the Carterville Field, have acquired additional acreage on which they will drill both for the Magnolia Gas Co. and the Dixie Gas & Utilities Co.

This has been reflected in several new locations and derricks and rigs going up at Carterville. West of Carterville, Hamiter and associates have blocked 3,000 acres and are getting ready to drill in Section 11-23-13. There are two dry holes between this acreage and the present Carterville Field.

The Dixie Gas & Utilities Co., through its interests and producing holding, has been especially active in the Waskom and Greenwood districts where efforts are being made to build up a large gas reserve in connection with the building up of a major gas distribution system in East Texas. Most of these operations are being carried under the name of B. A. Hardy, trustee, who has brought in several good gas wells in the last few weeks. However, Saturday, one of his tests, the No. 1 Bickman, Section 23-18-16, tested salt water from the Blossom sand at 1,951 feet.

Production Increases

The Haynes Brothers' deep well in the Pine Island Field was responsible to a large extent for a 4,245-bbl. increase in the daily average production in Arkansas and North Louisiana. Production has been practically steady for a long time, hovering around 162,000 bbls. daily. The past week the daily average production mounted to 166,375 bbls., divided by fields as follows:

North Louisiana	
Caddo, light	15,790
Caddo, heavy	5,435
Homer	5,050
Haynesville	7,550
DeSoto-Red River	4,100
Elm Grove	660
Bellevue	1,400
Cotton Valley	5,540
Urania	9,000
Pleasant Hill	590
Total	55,115
Arkansas	
El Dorado	6,135
Lisbon	3,740
Smackover, light	10,980
Smackover, heavy	87,340
Stephens	1,340
Nevada	1,600
Bradley	125
Total	111,260
Total both states	166,375
Total last week	162,170
Increase	4,205

A summary of operations during the week showed 22 completions, 14 tests waiting on pumping rigs, 13 temporarily abandoned, 178 drilling, 9 rigs up, 31 derricks and 9 locations. Detailed operations in proven fields were:

NORTH LOUISIANA

Bossier Parish

Humble Oil & Refining Co.'s No. 30 Bliss & Wetherbee, Section 15-19-11, is drilling shale and lime at 2,846 feet.

PATRICK CARBON
for Diamond Core Drilling

"Specify Patrick Carbon"

WORTH while economies in any drilling operation depend very largely upon the carbon used. Our responsibility is to provide carbon so accurately graded that you can enjoy its economies.

SEND FOR BOOKLET

You can get in touch with our representative by wiring Duluth office

R. S. PATRICK
Duluth, Minnesota, U.S.A.
Cable Address, "Exploring" Duluth

John Crane
Craneum
Hot Oil Packing

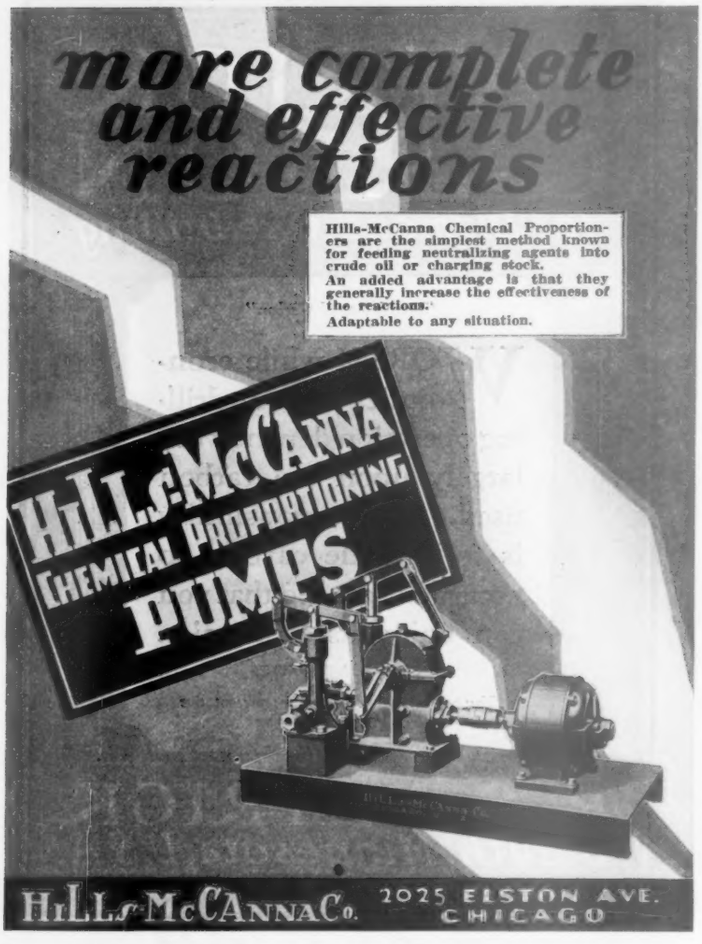
Here's welcome relief from packing troubles on gas lift compressors and hot oil plunger pumps. Craneum Style 250 stands for efficient service at temperatures to 900° F. and pressures to 1,600 lbs. Thousands of pounds going out to the refineries.

Recommended on Worthington, Wilson-Snyder, National Transit, Union Steam Pump, Hot oil plunger pumps and Chicago Pneumatic, Bessemer, Clark, Ingersoll-Rand, Gas Lift Compressors.

Spirals or sets can be furnished. Order from jobber or direct.

Crane Packing Company
1819 Cuyler Ave., Chicago

109 Broad Street NEW YORK
616 Mission Street SAN FRANCISCO
2005 Cedar Springs Road, DALLAS
824 S. Detroit Street TULSA


more complete and effective reactions
Hills-McCanna Chemical Proportioners are the simplest method known for feeding neutralizing agents into crude oil or charging stock.
An added advantage is that they generally increase the effectiveness of the reactions.
Adaptable to any situation.
HILLS-McCANNA CHEMICAL PROPORTIONING PUMPS
HILLS-McCANNA CO. 2025 ELSTON AVE. CHICAGO

Tell the Complete Story

No. 1

FOR SALE — Three Diesel generator units. Good as new. Can be bought at bargain.

No. 2

FOR SALE—Three 625-kva. Allis-Chalmers Generators; 3 phase; 60 cycle; 2,300 volts; 180 r.p.m. Direct connected to 750 h.p. Busch-Sulzer Diesels; direct connected exciters. Units are modern and have seen only two months service. May be had at reasonable price.

If these two classified ads appeared one beneath the other, you would unquestionably answer No. 2. It is concise but gives an adequate description of the generator units for sale. Prospective buyers will not ordinarily write for complete details, but expect them to be given in the advertisement.

Ad No. 1 is too brief to command action. The reader is left in doubt as to the make of the generator, the number of revolutions, the voltage and other important details.

In writing your classified ads bear in mind that facts are essential. Tell the complete story.

Classified Wants Department

This is in the Bellevue district and the only active test in proven fields of this parish.

Caddo Parish

Arkansas Natural Gas Co. has completed No. 8 Gayle, Section 30-16-12, southeastern Caddo Parish, making 1,000,000 feet of gas and a spray of salt water from a broken sand at 2,450 feet. This company's No. 2 Lane, Section 13-21-15, a deep test in the Pine Island Field, is down 2,316 feet. Askew and associates' No. 1 Elliott, Section 12-19-16, after drilling to a total depth of 2,803 feet, is plugging back to test a formation at 2,200 feet. J. R. Bahan's No. 3 Stringfellow, Section 19-17-16, is drilling in lime at 2,535 feet. It tested a show of oil and gas at 2,340 feet but passed this up. Bayou State Oil Corp. has completed No. 30 Hoss, Section 24-22-15, Hosston district, pumping 15 bbls. from a depth of 1,047 feet. In No. 31 Hoss, same section, 6-inch casing is being set at 1,066 feet. This is a new test started only a week ago. Ten-inch surface casing was set at 41 feet. Bethany Oil & Gas Co. is drilling at 2,240 feet in No. 1 Offenhauser, Section 1-20-16, resuming drilling after completing a fishing job at 2,225 feet. Dixie Oil Co.'s No. B-5 Files & Mabry, Section 14-21-16, is drilling at 3,234 feet. This company's No. 8 Fitzsimmons, Section 14-21-15, is shut down waiting orders with the hole down 3,710 feet. This is a Pine Island deep test. Dixie Oil Co.'s No. A-2 Noel, Section 13, is in a shell formation at 3,867 feet. No. 10 Slattery, Section 27-21-15, is drilling red shale at 3,958 feet.

Dobson and associates have a 10-bbl. pumping well in No. 5 Rives, Section 5-20-16. It was completed at 1,855 feet. Evans and associates have a derrick up for No. 1 Trosper, Section 35-18-16. Falson Drilling Co. is setting 6-inch casing at 2,130 feet in No. 1 Schmidt, Section 27-20-15. Gray and associates also have a derrick up for a test, No. 1 Hart, Section 29-21-16. Gulf Refining Co. has junked and abandoned No. 269 Ferry Lake, Section 29-20-16, after drilling to a total depth of 3,070 feet.

B. A. Hardy's No. 2 Angurs, Section 6-16-16, Waskom, is drilling at 2,270 feet. The same operator's No. 1 Bickham, Section 23-18-16, is down 1,884 feet, where 6-inch casing is being cemented. No. 1 Wheeler, Section 18-18-16, is being abandoned temporarily. It tested salt water with a show of gas at 986 feet.

Haynes Brothers' No. 1 Murray, Section 14-21-15, completed June 21 as a 20,000,000-foot gas well, was drilled 14 feet deeper to a total depth of 3,685 feet and was bailed in again flowing 500 bbls. in 40 minutes. It was shut in and when opened later was found to have bridged over. It was swabbed until it came in again flowing an estimated 6,500 bbls. daily through a 1⅛-inch choke and 6-inch flow line.

Magnolia Petroleum Co.'s No. 1 Bell, Section 4-17-16, Waskom Field, is drilling in gumbo at 2,009 feet. This company's No. 8 Bryson, Section 8-17-16, is down 180 feet in shale. Marshall Natural Gas Co. is drilling at 2,095 feet in No. 1 Sharp, Section 22-18-16. Ohio Oil Co.'s No. 25 Smith, Section 12-21-15, deep Pine Island test, is down 4,100 feet. In Section 22, Shawnut Petroleum Co. has a location for No. 5 Jolly. Simplex Oil Co. is drilling at 2,087 feet in No. 2 Schmidt, Section 15-20-15.

Standard Oil Co. has a 40-bbl. pumper in No. 14 Hart, Section 34-21-16, which was completed at a depth of 1,823 feet. This company has a derrick up for No. 182 Stiles, Section 33. In 186 Stiles, this section, 6-inch casing has been cemented at 1,816 feet. This company's No. 2 Trosper, Section 34-18-16, is drilling chalk rock at 1,616 feet. The Texas Company is drilling out the 8-inch plug cemented at 892 feet in No. 1 Alexander, Section 27-18-16. This company has staked two locations for offsets to the Haynes Brothers' No. 1 Murray in the Pine Island Field. These are for No. 6-A Herndon and No. 8 Herndon, Section 14-21-15. This company's No. B-13 Noel, this section, is drilling shale at 3,638 feet. The Texas Company's No. 4 Hutchinson, Section 9-15-12, is drilling a packed sand at 960 feet.

Tholl Oil Co.'s No. 11 Bashara, Section 23-21-15, is drilling lime at 2,610 feet. Woodley Petroleum Co. has started operations at No. B-1 Knight, Section 3-15-12, and latest reports have it drilling at 40 feet.

LaSalle Parish

National Gas & Fuel Co. has completed No. M-9 Urania, Section 20-10-2e, Urania Field, pumping 40 bbls. daily from a depth of 1,580 feet.

Monroe District

Falcon Drilling Co.'s No. 1 Gladney, Section 5-21-7e, Morehouse Parish, is drilling at 2,109 feet. In Section 21-23-7e, this parish, Natural Gas Products Co. is drilling gray sand at 2,190 feet. Operations at W. C. Feazel's No. 1 Faulk, Section 15-20-4e, are centered in killing a gas and salt water blow out at 400 feet.

In Ouachita Parish, Jordon Drilling Co. is down 1,600 feet in No. 2 Fudican, Section 25-18-4e. Ladell Properties, Inc., has completed No. 41 fee, Section 31-20-5e, gauging 19,500,000 feet of gas at 2,192 feet. Peerless Co. has abandoned the location staked nearly a year ago for No. 3 Moore, Section 49-20-4e.

In Union Parish, Natural Gas Products Co. is drilling at 726 feet in No. 2 Peak, Section 12-20-3e. The 12½-inch surface casing was cemented at 184 feet. Southern Carbon Co.'s No. 1 Gulley, Section 19-20-4e, is down 1,000 feet with 8-inch casing at 950 feet. United Carbon Co. has a derrick up for a test at No. 1 Jenny, Section 12-20-3e.

Webster Parish

W. T. Hunt is drilling lime at 1,030 feet in No. 1 Bisteneau, Section 35-18-10. Louisiana Oil Refining Corp.'s No. 7 Gray, Section 28-21-10, is pumping 15 bbls. daily from a depth of 2,579 feet. S. A. Lane is deepening No. 1 Roberts, Section 20-19-10. This test formerly was reported dry and abandoned at 1,537 feet. It now is down 1,650 feet. Magnolia Petroleum Co.'s No. 3 Cox, Section 23-21-10, is drilling at 3,352 feet. This company's No. 2 Marshall, Section 21, is down 306 feet, where it is waiting for casing. This company's No. 1 Obier, Section 32-23-9, is down 457 feet, where 10¾-inch casing has been set. Northwest Louisiana Gas Co. has completed No. 1 Coyle, Section 22-21-10, making 3,000,000 feet of gas from a total depth of 4,409 feet. Ohio Oil Co.'s No. 4 Bank, Section 22, is drilling lime at 4,066 feet. Woodley Petroleum Co. is down 3,100 feet in No. B-1 Cox, Section 23.

ARKANSAS

Union County

Atlantic Oil Producing Co. is swabbing No. 11 Dumas, Section 9-17-16, Lisbon Pool, to test 25 feet of broken sand at a total depth of 2,097 feet. Grimes & Jones' No. 1 Hill, Section 7-18-14, East El Dorado Field, is drilling at 1,475 feet. In the El Dorado Field, Mountz and associates are arranging to recement 6-inch casing at 2,146 feet in No. 6 Pratt, Section 8-18-15, in an attempt to shut off salt water encountered at 2,147 feet.

In the Norphlet Field (Smackover heavy), Gulf Refining Co. is down 950 feet in its new test, No. 11 Berry, Section 6-16-15. Ten-inch surface casing was cemented at 300 feet. Hollifield and associates are drilling at 1,350 feet in No. 3 Murphy, Section 9-16-15. E. M. Jones is preparing to deepen No. 2 Alphin, Section 4. This test was completed as J. H. Alphin No. 1 fee. This operator also has started another test in this section, No. 3 Alphin, which is drilling at 908 feet. E. M. Jones' No. 2-A Lawton, Section 10, is pumping salt water from sand at 2,447-52 feet. In Section 17, this operator has started operations at another test, No. 10 Murphy, which already has reached a total depth of 1,925 feet.

Magnolia Petroleum Co. is drilling at 1,500 feet in No. 3 Murphy, Section 8-16-15. This company's No. 6 Wilson, Section 17, is waiting on cement to set at 2,750 feet. Total depth of hole is 3,006 feet. Murdock and associates have abandoned temporarily No. 1 Vestal, Section 17, following a fishing job at a depth of 2,813 feet. National Gas & Fuel Corp. has 1,200 feet of fluid in the

Large new plant unit for the Parkersburg Rig & Reel Co., Parkersburg, W. Va., recently designed, built and equipped by Austin.

Producer or Equipment Manufacturer —Austin Builds for Both

A COMPLETE plant for the manufacture of equipment used in the oil industry, or a steel field building fabricated almost overnight for erection by a producer —the scope of Austin Building Service covers both, with speed and economy.

FOR THE LARGER CONSTRUCTION PROJECTS

Austin will take over your complete project—design, construction, and equipment —under a contract which guarantees total cost for the complete project in advance; completion date, with bonus and penalty clause, if desired; and quality of materials and workmanship.

FOR AVERAGE FIELD BUILDING REQUIREMENTS

Or Austin will design and furnish steel and other essential materials, from your plans or from Austin designs, and deliver the materials to the site ready for erection by your own forces.

Whatever the type or size of building project you may be contemplating, no matter where the location, it will pay you to get in touch with Austin. Valuable information will be furnished quickly.

Wire, phone the nearest office, or mail the Memo.

THE AUSTIN COMPANY, *Engineers and Builders,* Cleveland

New York Cincinnati Pittsburgh St. Louis Chicago Philadelphia Seattle Portland Detroit Miami
The Austin Company of California: Los Angeles and San Francisco The Austin Company of Texas: Dallas

AUSTIN

Complete Building Service

Memo to THE AUSTIN COMPANY, *Cleveland—* We are interested in a

---------- project containing ---------- sq. ft. Send me a personal copy of

"The Austin Book of Buildings." Individual ----------

Firm ---------- City ----------

O&GJ-7-14-27

KEYSTONE COPPER STEEL

Black and Galvanized SHEETS

KEYSTONE COPPER STEEL

RUST-RESISTING

Corrugated Sheets, Special Sheets

Tank, Barrel and Keg Stock

Tin and Terne Plates, Etc.

Highest quality sheets and tin plates for every purpose. Use APOLLO-KEYSTONE Corrugated Sheets for boiler and belt houses, sheds, warehouses, roofing and siding in oil country construction. Sold by leading metal merchants. Our booklets *Facts* and *Better Buildings* have a real message for you.

For Tanks

Specify KEYSTONE quality—used by leading tank manufacturers. This material assures better tanks, barrels and drums; the alloy of copper gives greatest endurance and rust-resistance. Actual time and service have proved this.

Sheet Mill Products

Black Sheets for all purposes, Apollo and Apollo-Keystone Copper Steel Galvanized Sheets, Culvert, Flume and Tank Stock, Formed Roofing and Siding Products, Special Sheets for Stamping, Full Finished Sheets, Automobile Sheets, Electrical Sheets, Stove and Range Sheets, Barrel and Keg Stock, Etc.

AMERICAN SHEET AND TIN PLATE — WORLD'S BEST BLOOD — KEYSTONE — COPPER STEEL — TRADE MARK REGISTERED — PITTSBURGH

Tin Mill Products

American Coke and American Charcoal Bright Tin Plates, Taggers Tin, American Old Style and American Numethodd Roofing Terne Plates, MF Roofing Tin Plates, Fire Door Stock, Black Plate for all purposes: Enameling and Japanning Stock, Stove Pipe Stock and Elbow Stock, Special Stamping Stock, Etc.

Manufactured by

American Sheet and Tin Plate Company

General Offices: Frick Building, Pittsburgh, Pa.

DISTRICT SALES OFFICES

Chicago Cincinnati Detroit New Orleans New York Philadelphia Pittsburgh St. Louis

Export Representatives: United States Steel Products Company, New York City

Pacific Coast Representatives: United States Steel Products Company, San Francisco, Los Angeles, Portland, Seattle

hole from sand at 2,398-2,404 feet and is waiting on a pumping rig.

Stewart and associates are waiting on a pumping rig for No. 3 Murphy, Section 9-16-15, which has 1,200 feet of fluid in the hole from sand at 2,400-04 feet. Total depth of the hole is 2,787 feet but it was cemented back to the Meakin sand and the casing perforated. The Sun Oil Co. is making arrangements to put No. 3 Hays, Section 3-16-15, on air. It has 1,500 feet of fluid in the hole from a total depth of 2,275 feet.

In the Louann sector of Smackover, Magnolia Petroleum Co. has completed No. 1 Union Lumber Co., Section 21-16-16, pumping 2½ bbls. of oil and 11 bbls. of salt water from a depth of 2,676 feet. National Consolidated Petroleum Co. also has a well in No. 2 Fagg, Section 8, which is pumping 32 bbls. from sand at 2,647 feet. J. J. O'Brien is setting a short string of 6-inch casing at 2,658 feet in No. 1 Saxon, Section 16.

Ouachita County

F. A. Book is arranging to core drill No. 3 Johnette, Section 33-15-16. This test, in the Louann Pool on the Ouachita County side, test dry at 2,259 feet. Total depth of the hole is 2,262 feet.

In the Norphlet district, Exchange Oil Co. has completed No. 3 Berg, Section 4-16-15, pumping 350 bbls. daily, of which 98 per cent is salt water. The well is in 5 feet of sand at 2,362-67 feet. No. 7 Berg, same section, also has been completed pumping 300 bbls., 95 per cent salt water from sand at 2,357-61 feet. In No. 8 Berg, 6⅝-inch casing has been cemented at 2,351 feet. Marine Oil Co. has cemented 6⅝-inch casing at 2,354 feet in No. 10-A Synder, Section 34-15-15. This company also has staked a location for No. 13 Snyder in this section. Phillips Petroleum Co.'s No. 15 Joyce, Section 33-15-15, blew in making an estimated 10,000,000 feet of dry gas from a depth of 2,639 feet. It will be closed in. Sunny Jim Oil Co.'s No. 12 Berry, same section, has 1,200 feet of oil standing in the hole from sand at 2,359-66 feet and is waiting on a standard pumping rig. The Texas Company's No. 1 Spahr, Section 35-15-16, also is waiting on a pumping rig with 400 feet of oil and 10 feet of water in the hole. This test is down 2,022 feet. Unity Petroleum Co. is drilling out cement at 2,270 feet in No. 8-A Umstead, Section 33-15-15.

In the Stephens Field, Buffalo Oil Co.'s No. 3 Culp, Section 22-15-19, has been shut down at 1,435 feet. Magnolia Petroleum Co.'s No. 1 Morgan, Section 7, also has been shut down with total depth at 2,935 feet.

Nevada County

Fruen and associates' No. 1 Rhodes, Section 22-12-21, has been shut down at 1,430 feet. Humble Oil & Refining Co.'s No. 1 Heim, Section 1-14-21, has 16 feet of sand at 1,084-1,100 feet and is waiting on a standard pumping rig. Autrey Oil Co. is drilling at 600 feet in No. 1 Hagnie, Section 6-14-20. J. J. O'Brien's No. 4 Moss, Section 1-14-21, is down 1,000 feet. Zing and associates' No. A-2 Moss, Section 12-14-21, has been shut down at 1,165 feet.

LA.-ARK. WILDCATS

(Continued from Page 46)

Crain. The Lawton district has produced some big gas wells but the majority have turned to salt water or gone dead shortly after completion.

Wait Outcome of Test

The prospect of a drilling campaign in the vicinity of the Ohio Crain well is hinging chiefly on the outcome of the company's second well there, the No. 1 Humphrey, which is down 2,370 feet. Saturday this test was fishing for a sledge hammer which was dropped into the hole. The Ohio well is producing from a depth of 3,014 feet and there is considerable doubt as to whether 50-bbl. pumping wells would be attractive from such a deep level on present market conditions.

In Ouachita County, Arkansas, Magnolia Petroleum Co.'s No. 1 Stout, Section 28-14-16, has not drilled out the plug to test 2 feet of favorable-looking oil sand encountered at 2,092-97 feet, but is shut down waiting for titles to be cured. Magnolia Petroleum Co. also is trying to obtain a little more acreage in the vicinity of the test.

Lenz and associates' No. 2 Dale, Section 23-15-26, rank wildcat in Miller County, Arkansas, started flowing salt water when washed after the plug was drilled out has been mudded up and a core is being taken. This district has been drawing the attention of many operators and reported sand showings led some Texarkana interests to lease an adjoining block and contract for a 3,000-foot test in Section 33-15-26.

Dixie Oil Co.'s deep test in DeSoto Parish has resumed drilling after completing a fishing job lasting since March. This test, the No. 1 Jenkins, Section 9-12-11, is down 5,319 feet, the deepest of any drilling test in the division. This is the test which had a gas blowout at 5,283 feet sticking the cable tools.

Detailed wildcat operations during the week were:

NORTH LOUISIANA

Bienville Parish

W. E. Hicks and associates are coring at 1,960 feet in No. 1 Hodge Hunt, Section 21-16-5. Other tests in this parish are shut down.

Bossier Parish

Estes and associates' No. 1 Bodcaw, Section 15-23-12, Carterville, gauged 13,000,000 feet of gas with a spray of oil and salt water estimated at 25 bbls. daily. It has been completed in sand at 3,088-90 feet. Palmer Corp.'s No. 4 Bossier, Section 9-16-11, is drilling hard lime at 4,596 feet. W. R. Ramsey's No. 1 Dodson, Section 16-23-12, Carterville, has been completed in sand at 3,074-93 feet where it blew out several weeks ago. It gauged 30,410,625 feet daily. This operator also has completed No. 1 Robertson, Section 22, making 27,000,000 feet of gas with a spray of salt water from sand at a total depth of 3,096½ feet. In this same area, The Texas Company has a derrick up for No. 1 Mays, Section 27. Walker and associates' No. 1 Antrim, Section 28-22-13, is shut down at 350 feet. The 12½-inch casing has been cemented at 200 feet. Woodley & Collins have a derrick for No. 1 Farrington, Section 22-23-12, and a rig up for No. 1 Matlock, Section 23. Sligo Syndicate has cemented 6⅝-inch casing at 3,974 feet in No. 1 Jeter, Section 23-17-12.

Caldwell Parish

Grayson Oil Co. is drilling at 2,230 feet in No. 1 Crockett, Section 6-12-4.

Claiborne Parish

Magnolia Petroleum Co.'s No. 1 Lee, Section 16-22-8, is drilling gummy shale at 3,728 feet. Rudeseale and associates are down 1,260 feet in No. 1 Meadows, Section 20-21-7. Tate and associates are drilling gumbo at 3,100 feet in No. 1 Maddox, Section 21-23-7. This test encountered a white sand from 3,069 to 3,098 feet.

DeSoto Parish

Dixie Oil Co. has recovered cable tools for which it has been fishing since the latter part of March, and has resumed drilling in No. 1 Jenkins, Section 9-12-11. The hole is down 5,319 feet, the deepest level in any drilling test in this division. It is showing a little gas. Hoosier Oil Co.'s No. 1 Berry, Section 5-11-11, is drilling lime and shale at 2,425 feet. Magnolia Petroleum Co. is setting 2½-inch tubing in No. 1 Logan, Section 17-10-12. This test is standing full of oil from a broken formation at 3,159-73 feet. Reliance Drilling Co.'s No. 1 Jones, Section 8-11-14, has been shut down at 2,815 feet. Seip and associates' No. 1 Roberson, Section 18-10-12, is drilling lime at 3,030 feet.

Franklin Parish

Barbour Oil Co.'s No. 1 Baker, Section 3-15-7e, has been shut down after drilling to a depth of 2,660 feet.

Grant Parish

Swope and associates' No. 3 fee, Section 18-9-1e, has cemented 6-inch casing at 1,578 feet.

LaSalle Parish

Tunica Petroleum Co. has cemented 6-inch casing at 766 feet in No. 34 L. & A., Section 8-7-2e. This company's No. 35 L. & A., Section 9, is being bailed for a test of the sand at 782 feet. Six-inch

casing is at 765 feet. Other wildcat operations in this parish are at a standstill.

Natchitoches Parish

Ohio Oil Co. is drilling gummy shale at 1,758 feet in No. 2 L. & A., Section 26-13-6w.

Red River Parish

Alden Oil Co.'s No. 1 Powell, Section 13-11-10, has been shut down for rig repairs. This test has reached a depth of 2,740 feet. Hazlett & Simmons are drilling chalk rock at 1,402 feet in No. 1 Neeley, Section 1-14-12.

Richland Parish

Gulf Refining Co. is trying to kill a blow out in No. 2 Rhymes, Section 5-16-6e, which occurred at 2,880 feet. Ruston Drilling Co. has cemented 12½-inch casing at 199 feet in No. 1 McCoy, Section 30-16-6e.

Sabine Parish

Arkansas Fuel Oil Co.'s No. 1 Hern, Section 33-10-12, is drilling lime at 3,126 feet. In the same section, No. 6 Logan has drilled out the plug at 3,115 feet with cable tools and now is drilling in lime at 3,125 feet. No. 8 Logan has been completed flowing 15 bbls. daily through 2½-inch tubing and a packer. Production is from sand at 3,175-3,228 feet. In No. 10 Logan the 6⅝-inch casing has been cemented at 3,143 feet. No. 1 Williams has been completed flowing 15 bbls. daily through 2½-inch tubing with a packer from a total depth of 3,229 feet. Magnolia Petroleum Co. has cemented 6⅝-inch casing at 3,144 feet in No. 1 Hall, this section.

In Section 23-10-13, Arkansas Fuel Oil Co. has started operations at No. A-1 Logan and is down below 100 feet. Foster and associates' No. 1 Nabors, Section 30-10-12, is drilling at 1,300 feet. Frazier and associates have a derrick up for No. 1 Harris, Section 29. Magnolia Petroleum Co. is down 2,170 feet in No. 1 Rembert, Section 32. This company has abandoned as dry at 1,700 feet its No. 2 Louisiana L. L. Co., Section 2-6-11. Morgan and associates' No. 1 Reese, Section 5-9-12, is in a sandy shale at 2,775 feet. C. W. Robinson and associates are drilling lime at 3,293 feet in No. 1 Hamlin, Section 6-9-13. L. M. Emlet has junked the second hole he has drilled for No. 7 Bowman, Section 14-7-14, and has skidded the derrick 24 feet further west, and is drilling in No. 7-B at 259 feet. This operator is drilling in No. 1 Mansfield, Section 15-7-14, at 362 feet.

Webster Parish

W. T. Hunt's No. 1 Misteneau, Section 35-18-10, is drilling in lime at 1,030 feet. Shreveport-El Dorado Pipe Line Co. is down 500 feet in No. 1 Gamble, Section 33-10-8.

Winn Parish

Dodge & Cordell's No. 1 Tremont, Section 35-13-3w, has been shut down after drilling to a depth of 11,420 feet. Ohio Oil Co. has drilled out the 6⅝-inch plug cemented at 2,222 feet in No. 1 McCarty, Section 5-12-1w, and now is bailing for a test. H. M. Roark is drilling at 410 feet in No. 2 Southern Minerals Co., Section 19-11-3w.

ARKANSAS

Union County

C. H. Allison and associates' No. 1 Union Saw Mill Co., Section 8-19-13, is being cored at 2,970 feet. Lion Oil & Refining Co. is rigging up for No. 1 Craig, Section 4-18-18. Ohio Oil Co. is drilling sandy shale at 2,193 feet in No. 1 Pumphrey, Section 1-17-14. Simms Oil Co. has a rig up to deepen No. 1 Ballard, Section 9-18-13. This test formerly was completed at 2,556 feet flowing 300 bbls. of fluid, 98 per cent salt water. W. D. Wingfield's No. 1 Hadley, Section 2-18-13, is coring at 2,669 feet after testing dry at 2,314 feet.

Miller County

Lenz and associates twisted off after drilling out 100 feet of the 200 feet of cement in the hole in No. 2 Dale, Section 23-15-26.

KANSAS FIELDS

(Contined from Page 44)

tion 9-31-9. Theta Oil Co.'s No. 2 Marshall, SE cor. Section 27-31-10, was shot with 40 quarts in sand 1,980-99 feet and made a 10-bbl. well.

Ellis County

Keys Promotion Co.'s No. 1 Gerstner, SW cor. NW, Section 13-13-18w, lost the hole at 1,405 feet and was abandoned.

Greenwood County

Empire Gas & Fuel Co. made location for No. 12 Hinds, C SE SW, Section 11-22-11. Location was also made for No. 18 Kipfer, C SW SE, Section 11-22-11. Location for No. 17 Fromme was made C NW NE, Section 14-22-11. Location for No. 9 Killison was made C NW NW, Section 14-22-11. The rig is up for No. 15 Duby, SE cor. NE NW, Section 23-22-11. Ritchey & Moore made location for No. 1 Zimmerman, SW cor. NW NW, Section 1-22-12. Darby & Simmons and others have a machine on the ground for No. 1 Fankhouser, SE cor. SW, Section 24-22-12. Rogers and others have the rig up for No. 1 Townlot, NW cor. NE NW, Section 2-26-10. McGinnis and others made location for No. 1 Rush, NE cor. NW, Section 9-27-11. Foster and others' No. 1 Taylor, NE cor. NW, Section 7-27-12, is spudding.

Fisher, Lauck and others' No. 1 Laird, NE cor. SE SW, Section 3-23-10, is dry at 2,415 feet. Noble and others' No. 1 Lowery, SW cor., Section 22-26-9, is making 20 bbls. from sand 2,290-2,313 feet where it was shot with 40 quarts. Kansas Central Oil Co.'s No. 1 Gibson, C NW SE, Section 14-26-11, is making 3,500,000 feet of gas from sand 632-651 feet. McGinnis and others' No. 1 Furguson, SE cor. SW, Section 4-27-11, is a 50-bbl. well in sand 1,788-1,805 feet.

Lyon County

Loy and others made location for No. 1 Schroeder, NE cor. SE, Section 17-21-10.

Marshall County

Marshall Oil Syndicate's No. 1 Finn, NW cor. NE NE, Section 4-4-7, is at a depth of 1,810 feet.

Marion County

Sinclair Oil & Gas Co.'s No. 1 Bevens, NE cor. SE, Section 21-17-4, Lost Springs Pool, was completed for 500 bbls. in sand 2,379-2,404 feet. Allison & Fitzwilliams' No. 1 Bock, SE cor. NE, Section 15-21-3, is dry and abandoned at 2,918 feet.

Morris County

Hawse, Ainsworth and others made location for No. 1 Seastead, NE cor. SE NW, Section 8-17-5. Nicols and others' No. 2 Hammer, C NE NW, Section 14-16-7, is a dry hole at 1,525 feet.

Rice County

Mid-Kansas Oil Co.'s No. 1 Syminser, NE cor. SW NE, Section 13-21-8w, is dry at 4,029 feet.

Russell County

Mid-West Refining Co.'s No. 33 Ginther, SE cor. SW NW, Section 30-12-15w, is a 5-bbl. well in sand 3,470 feet plugged back to 3,271 feet. Streeter & Stearns' No. 1 Gorham, SW cor. NE, Section 7-13-15w, made 75 bbls. from sand 3,088-3,170 feet.

Sumner County

Phillips Petroleum Co. made location for No. 1 Buffington, tract 2 Oxford townsite, Section 13-32-2. Roxana Petroleum Corp. has the rig up for No. 1 Community, Block 53, Section 14-32-2. The rigs are also up for their No. 1 Fritz, Block 88 and No. 1 Nevitt, tract 3, Section 14-32-2.

Gypsy Oil Co.'s No. 1 Griffeth, NE cor. SW NE, Section 3-31-2, is dry at 3,643 feet. Shawver & Sutter and others' No. 1 Nofsinger, NE cor. SE NE, Section 34-32-2, is a dry hole at 3,568 feet.

Woodson County

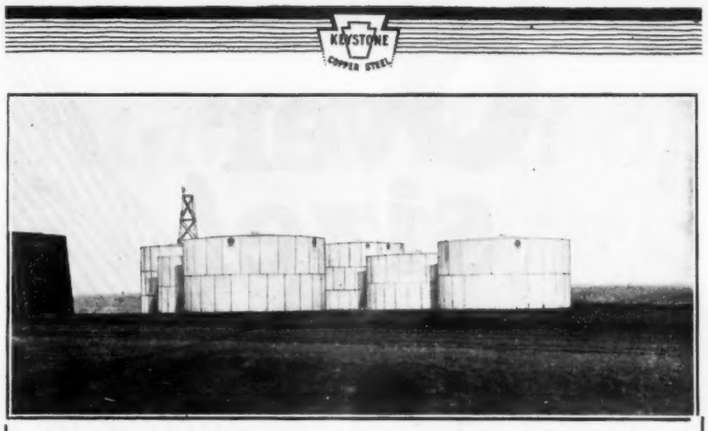
Schonetus and others' No. 1 Collins, NW cor., Section 30-23-14, is dry and abandoned at 1,713 feet.

OKLAHOMA FIELDS

(Contined from Page 44)

location for No. 1, NW cor. SW NW Section 14-7-4.

Mid-Continent Petroleum Corp.'s No. 6 Doyle, NW cor. SE SW Section 19-7-4, Pearson Pool, has been completed for 1,200 bbls. in the Hunton lime at 3,752-93 feet. No. 8 Doyle, SE cor. SW Sec-



Battery of Four 2,000-Bbl. and Two 3,000-Bbl. Maloneys in Use by The MacMillen Refining Co. at Borger, Texas.

Maloney Tanks Help You Fight EVAPORATION

The exceptional degree in which MALONEY Tanks are *gas-tight* and *evaporation proof* renders them a valuable ally to the operator who is fighting the waste and loss due to evaporation.

Our patented "crimp" at seams and joints causes MALONEY parts to fit with hair-line accuracy. This precise fit, together with the use of our special rubber packing and the final dressing with our Gaso Cement,—makes every seam oil, water and gas tight. Maloney special pearl gray paint deflects heat and reduces "breathing."

MALONEYS are constructed of rust-resisting Keystone Copper Steel. Seams are rigidly reinforced. Cleaning out plates are set flush with bottoms. Valve and thief hatch equipment is the best to be had.

"Alone in Quality"

MALONEY TANK MFG. COMPANY
Tulsa, Okla.
Distributors at All Principal Petroleum Points

Sizes: 12 to 3,000 Barrels

Packed in Steel-Bound Crates for Export

Howell Aluminum "3-in-1" Vacuum Pressure Valve and Thief-Hatch—The BEST and LATEST Deck Equipment—POSITIVE Safety.

MADE OF KEYSTONE COPPER STEEL — MALONEY PATENTED BOLTED COPPER-STEEL TANKS — MADE OF KEYSTONE COPPER STEEL

MALONEY
ALONE!

Over Size!

Macwhyte Wire Lines are made oversize. The oversize construction contains a greater amount of steel—produces a stronger rope with longer life. Write for location of stocks. Macwhyte Company, 2916 Fourteenth Avenue, Kenosha, Wis.

MACWHYTE
Wire Lines

H

BITS OF PROGRESS

are made from

DIAMOND—"H"—
Bit and Jar Steel

Forged from open hearth ingots made from the highest grade raw materials.

Try DIAMOND "H"—compare results
It is truly, a better steel

HEPPENSTALL
Forge & Knife Co.
Pittsburgh, Penna.

Fort Worth — Texas Office
1415 F. & M. Bank Building

tion 19-7-4, is pumping 75 bbls. from the Hunton lime at 3,738-80 feet.

Seminole County

Snowden & McSweeney's No. 1 Epply, SW cor. NW NE Section 15-10-8, an old well, is now being cleaned out preparatory to deepening. Barnsdall Oil Co. has the rig on the ground for No. 3 N. Bruner, SE cor. NE NE Section 10-9-5, Earlsboro Pool. The rig is being built for No. 4 Bruner, NE cor. Section 10-9-5. Magnolia Petroleum Co. has the tools on the ground for No. 2 Lena, NW cor. SW SE Section 10-9-5, preparing to deepen. The Prairie Oil & Gas Co.'s No. 10 Stidham location was made NE cor. SW NE Section 11-9-5. Carter Oil Co. is building the rig for No. 3 Paine, NE cor. NW SE Section 12-9-5. Empire Gas & Fuel Co. made location for No. 1 Barker, SW cor. SE NE Section 12-9-5. Gypsy Oil Co. is erecting the rig for No. 2 Noble, SE cor. SW NE Section 12-9-5. Location was made for No. 3 Noble, NW cor. SW NE Section 12-9-5. Sinclair Oil & Gas Co. has dug the cellar for No. 3 Hollins, NW cor. NE NW, Section 12-9-5.

Wilcox Oil & Gas Co. made location for No. 7 Cluck, NW cor. NE W Section 4-9-6, Searight Pool. Location for No. 8 Cluck was made SW cor. NE NW Section 4-9-6. Empire Gas & Fuel Co. is building the rig for No. 5 Gross, NE cor. NW SE Section 25-9-6, Seminole Pool. Mid-Kansas Oil Co. made location for No. 2 Wilkins, SW cor. NW NE Section 25-9-6. Location was made for No. 3 Wilkins, SW cor. SE NE, Section 25-9-6. Smith and others have the rig up for No. 1 Townsite, SE cor. NW NW, Section 27-9-6, in Seminole city.

Magnolia Petroleum Co. has the rig on the ground for No. 2 Cumsey, SW cor. SE NE Section 10-8-6. The Prairie Oil & Gas Co. is moving the rig in for No. 2 Bowlegs, SW cor. SW NW Section 22-8-6, Bowlegs Pool. Carter Oil Co. made location for No. 1 Burden, NW cor. NE SW Section 23-8-6. Location was made for No. 2 Burden, NE cor. SW Section 23-8-6. The rig is on the ground for No. 3 Burden, NW cor. SE Section 23-8-6; also for No. 4 Burden, NE cor. NW SE Section 23-8-6. The rig has been moved out for No. 2 Hilly, NW cor. NE SE Section 23-8-6. Rig is being built for No. 12 Wise, SW cor. NE Section 23-8-6. Indian Territory Illuminating Oil Co. is erecting the rig for No. 1 Burden, NE cor. NW SW Section 23-8-6. Blackwell Oil & Gas Co. made location for No. 1 Nitey, SE cor. Section 35-8-6. Location was also made for No. 2 Nitey, SW cor. SE SE Section 35-8-6. Mid-Continent Petroleum Corp. made location for No. 2 Wadsworth, SE cor. SW SW Section 36-8-6.

Superior Oil Co. made location for No. 1 Wadsworth, NE cor. SE NE Section 1-7-6, Little River Pool. Indian Territory Illuminating Oil Co. has the rig on the ground for No. 2 Nity, SE cor. NE NE Section 2-7-6. Roxana Petroleum Corp. made location for No. 1 Cosar, NE cor. SE NE Section 11-7-6.

Barnsdall Oil Co.'s No. 1 Pack, an old well, NE cor. SE SE Section 10-9-5, Earlsboro Pool, was deepened to 3,570 feet and is pumping 337 bbls. from the old producing sand. No. 2 Peter, SE cor. SW Section 10-9-5, had the Wilcox sand at 4,268-81 feet and made 2,000 bbls. initial production. Carter Oil Co.'s No. 1 Paine, NW cor. SE Section 12-9-5, was completed for 6,845 bbls. in the Wilcox sand at 4,205-4,225 feet. Barnsdall Oil Co.'s No. 1 Wasutke, NE cor. SW Section 12-9-5, made 4,967 bbls. initial production from the Wilcox sand at 4,-331-39 feet. The Prairie Oil & Gas Co. No. 3 Stidham "B," SW cor. SE NE Section 11-9-5, came in for 275 bbls. an hour from the Wilcox sand at 4,283-4,303 feet. Barnsdall Oil Co.'s No. 1 Hearn, NE cor. Section 15-9-5, is producing 75 bbls. from the Wilcox sand at 4,311-18 feet.

Pure Oil Co.'s No. 2 Aldridge, NE cor SE NW Section 3-9-6, Searight Pool, was completed for 3,269 bbls. in the Wilcox sand at 4,343-75 feet. Barnsdall Oil Co.'s No. 1 Henry, SE cor. SW SW Section 14-9-6, Seminole Pool, had top of the Hunton lime at 4,353 feet, drilled to 4,410 feet and made 180 bbls. Carter Oil Co.'s No. 8 Grisso, SW cor. NE SW Section 23-9-6, has bzeen abandoned in the Wilcox sand at 4,121-61 feet. Sinclair Oil & Gas Co. and Transcontinental Oil Co.'s No. 3 Fixico, NW cor. SW NW Section 23-9-6, had Wilcox sand at 4,180-4,319 feet, was plugged back to 4,264 feet and made 130 bbls. Gypsy Oil Co.'s No. 3 Harjo, SE cor. NW SW Section 25-9-6, made 447 bbls. in the Wilcox sand at 4,467-85 feet after it was shot with 10 quarts. McCullough Oil Co.'s No. 3 Butler, NE cor. SE NE, Section 35-9-6, was shot with 20 quarts in the Wilcox sand at 4,100-29 feet and flowed 4,010 bbls. No. 1 Drewry, SE cor. SW SE Section 18-9-7, a rig, has been abandoned.

Independent Oil & Gas Co.'s No. 2 Alexander, SW cor. NW SE Section 7-9-8, has been abandoned at 3,430 feet. Mid-Continent Petroleum Corp.'s No. 2 Baker, SE cor. SW SE Section 10-8-6, Bowlegs Pool, made 3,160 bbls. after being shot in the second Wilcox sand at 4,051-65 feet. Indian Territory Illuminating Oil Co.'s No. 4 Davis, SE cor. SW SW Section 13-8-6, made 1,469 bbls. first 24 hours from the Wilcox sand at 4,293-4,301 feet. No. 2 Fay, NW cor. SW Section 13-8-6, had the Wilcox sand at 4,450-54 feet and when put on air made 3,271 bbls. Shaffer Oil & Refining Co.'s No. 4 Lacey, an old well, SW cor. SE SW Section 14-8-6, had the top of the Wilcox sand at 4,210 feet and was deepened from 4,223 feet to 4,247 feet and made 768 bbls. after deepening. Minnehoma Oil Co.'s No. 3 Bowlegs, SE cor. SW SW Section 15-8-6, made 1,725 bbls. on air from the Wilcox sand at 4,329-72 feet. Atlantic Oil Producing Co.'s No. 4 Jones, SW cor. NE SE Section 16-8-6, is dry and abandoned at 4,296 feet in the Wilcox sand. No. 5 Jones, NE cor. SE SE Section 16-8-6, is a dry hole at 4,370 feet in the Wilcox sand. Roxana Petroleum Corp.'s No. 4 Taylor, NE cor. Section 16-8-6, had an initial production of 755 bbls. from the Wilcox sand at 4,470-73 feet. No. 5 Taylor, SW cor. SE NE, Section 16-8-6, was completed for 100 bbls. after a shot of 20 quarts in the Wilcox sand at 4,290-93 feet. Indian Territory Illuminating Oil Co.'s No. 2 Bowlegs, SW cor. SE NE Section 22-8-6, produced 2,087 bbls. from the Wilcox sand at 4,180-4,202 feet. No. 1 Dickson, NW cor. Section 1-7-6, Little River Pool, has been completed for 13,794 bbls. in the Wilcox sand at 4,017-28½ feet. The Prairie Oil & Gas Co.'s No. 2 Gahagan, SE cor. SE NE Section 23-8-6, made 990 bbls. from the Wilcox sand at 4,428-41 feet.

CO-OPERATIVE ACTION URGED FOR INDUSTRY

(Continued from Page 29)

widely adopted in modern business operation generally.

By the organization of local committees concerned with the situation in individual pools, the industry would be minimizing the possibility of running counter to the Federal and state anti-trust laws. The Federal Oil Conservation Board stressed the necessity of operators' agreements, even suggesting legislative changes to remove any doubts as to their legality. It held that in periods of overproduction this was the logical action in an individual pool where oil was being brought to the surface without a market.

While the board also pointed out that such action taken in isolated pools would probably only affect a small proportion of the production of the country and thus would not amount to a general curtailment, it is at the same time apparent that locally applied restrictions cannot be construed as legal in one district and illegal in another, if several or all pools, each contributing to a condition of overproduction, are subjected to co-operative operating methods.

By extending the idea of co-operation to other districts the industry would not only be guarding itself against a prolongation of present uneconomic conditions but would clear up once and for all the questions raised as to how far it can go voluntarily in meeting such a situation. By presentation of its problems to the Federal Oil Conservation Board and other

A More Efficient Method of BLENDING GASOLINES

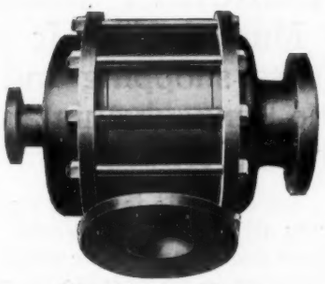
Operation—

Natural gasoline is pumped into receiving chamber of Head, whence it passes through especially designed jets at high velocity, into a zone containing the still gasoline. By siphonic effect, the still gasoline is drawn with the natural gasoline, through constricted openings in front of each jet, into the turbulence chamber. The combination of velocity, turbulence and siphonic action, causes an exceedingly intimate contact and mixture. The process is continuous, the only control that is necessary being the proper setting of the valves from the stock tank and pump.

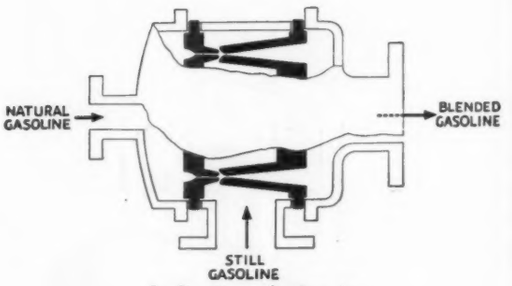
Other Uses—

The MASTER MIXER HEAD is also used by leading refineries to reduce costs and increase efficiency in treating gasolines, and for other purposes where intimate contact is desired between any liquids.

Our engineering department is at your service. *Write us fully.*



The Master Mixer Head—Patented



Indicating Action in Blending Gasoline

Uniform Blend Obtained at MINIMUM COST for Installation and Operation

The MASTER MIXER HEAD is ideal for blending gasolines because it gives *extremely intimate contact,* and because the exact blend desired is easily secured and uniformly maintained by proper set-up of valves from pump and stock tank.

Since the simple MASTER MIXER HEAD replaces expensive agitator equipment, *installation costs are sharply reduced.*

By reducing evaporation at least 50%, by giving continuous operation instead of tedious batch handling, by requiring only one pumping, and by saving both time and labor, the MASTER MIXER HEAD effects *drastic economies in operating costs.*

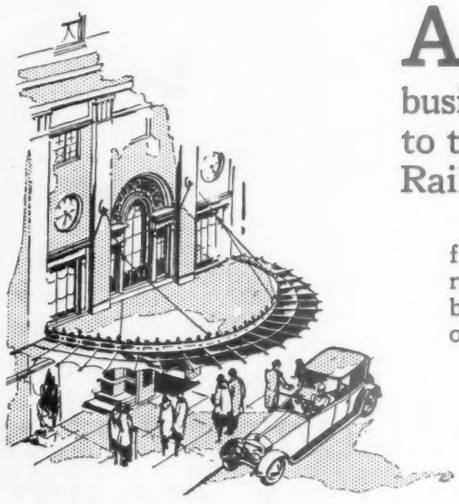
The efficiency and economy of the MASTER MIXER HEAD method for blending gasolines, have been proven by many gasoline manufacturers in California and the Mid-Continent Field.

PETROLEUM APPLIANCE COMPANY
2311 W. 9th St.
Los Angeles, Calif.

Exclusive Mid-Continent Distributors:
WESTCOTT & GREIS, Inc.
Tulsa, Okla.

PETROLEUM APPLIANCE COMPANY

The
VANDERBILT HOTEL
NEW YORK
Thirty fourth Street East at Park Avenue



ADMIRABLY situated on the Crest of Murray Hill. It is convenient to the business, shopping and theatre centers and to the Pennsylvania and New York Central Railway Terminals.

Its clientele is made up of intelligent travellers from all parts of the World. One finds in the dining room excellent service and a perfect cuisine. Every bedroom is an outside room and each one has its own private bath.

TARIFF

Single room with bath $4.50 per day and up
Double room with bath $8.00 per day and up

WALTON H. MARSHALL,
Manager.

WITH a well-proportioned housing, specially designed to provide extra large surface area and advertising space, Gilbert & Barker pumps will enable you to display your trade-mark or brand name attractively, and effectively. And profitably,—for the passing motorist will be continually reminded of his need for your gas,—and invited to stop and get it.

G. & B. pumps are built to help you *tell and sell.**

Upon request, we will gladly send you an interesting leaflet, "Getting a full pump's worth," also bulletins on our two new visibles of the wet hose and mechanical measure types. No obligation.

GILBERT AND BARKER MANUFACTURING COMPANY
PUMPS AND TANKS FOR THE OIL TRADE
SPRINGFIELD MASS. U.S.A.

**Over 1200 oil marketers are using G. & B. equipment.*

PUMPS THAT HELP YOU SELL

Government agencies, by conferences held openly and with the public advised of its action, the industry would for the first time have some guarantee of stabilization.

As pointed out by The Oil and Gas Journal a policy which has proved so successful in connection with the Seminole agreement should be continued and expanded. Several situations are indicated which will require co-operative effort and these should not be delayed until the damage is done or nothing is left to be tried except to limit it. Conferences should be preventive rather than remedial.

Plans on Fundamentals

In this connection, the suggestion is made that specific plans regarding producing operations, leasing, etc., designed to guard against fundamental causes related to recurring periods of overproduction be cleared through a general committee or association of practical oil men, that such a committee attempt to decide on one or several plans and then present the matter to the Federal Oil Conservation Board for thorough and general discussion within and outside of the industry.

With the Federal Oil Conservation Board's sanction, one or more plan of this character could then be taken for practical application in some section of the oil country, if not generally, and be made the basis either for adjustment of producing methods along more economic lines or for preventive action in case of threatened overproduction.

It is apparent that the ills of the oil industry cannot be cured by legislation alone and that certain changes or adjustments are necessary in the ordinary operation of the producing business in the interest of stabilization. Action forced by specific legislation is not what is required and, in fact, would fail of elasticity made essential by the very nature of the business. Preventive action to be effective would have to be fundamentally co-operative action.

The Federal Oil Conservation Board stated that in connection with conservation, which is another word for economic operation and utilization, the most effective measures could be taken by the industry itself through individual initiative, through co-operation within the industry and with the Government. In working out preventive measures, based on the co-operative idea, the industry would be applying itself to solution of its most vital problems and could undoubtedly count on the support and influence of the Federal Oil Conservation Board.

Leasing Problem

That co-operation is the answer is best demonstrated by a study of the various plans which have been suggested, many of them having the basic idea of unit operation of pools. For instance, the suggestion made jointly by Walter C. Teagle, president of the Standard Oil Co. of New Jersey, and W. S. Farish, president of the Humble Oil & Refining Co., to the Federal Oil Conservation Board in favor of a wildcatter selling undivided fractional interests in his block of land, rather than full interests in definite subdivisions, could not be effectively put across by legal compulsion under our constitutional system but by voluntary action in the industry it could be widely adopted.

There is no doubt that the co-operative era in the oil industry is fairly launched, but affirmative action should be taken to see that the movement gains momentum. Attention has been called, also, to the fact that the field for co-operation in the petroleum business extends to every branch.

"Co-operation within the industry can effect economics all along the line—in development and production, a better balancing of supply to demand, when and where the oil is needed; in transportation, better planning, thus avoiding crosshauls of crude and crosshauls of products; in distribution, less duplication of marketing facilities, which at times even involve an expense equal to the cost of production and refining," says the Federal Oil Conservation Board.

Public Confidence In Oils Shown In Bond Issues Taken

NEW YORK, July 9.—While current conditions of oil production may temporarily at least reflect a situation generally regarded as unfavorable and savoring of an unhealthy economic tone, it might be recalled at this time that the confidence of the investing public in the oils as a group is still strong, and since January 1, 1927, the public has absorbed $219,000,000 worth of bonds from oil companies.

The oil bonds as a group have a yield slightly better than the average industrial bond, and an inspection of the table of bonds accompanying this story illustrates an average yield of slightly more than 5 per cent for the issues.

Since January 1, the following bonds have been placed by various oil companies, the issues ranging in size from $50,000,000 to $2,000,000:

Company—	Amount	Pct.
Shell Union Oil deb. 1947	$50,000,000	5
Phillips Pet. deb. 1939	40,000,000	5¼
Gulf Oil Corp. Pa. deb. 1947	35,000,000	5
Empire Oil & Ref. 1st mgte trust 1942	30,000,000	5½
Humble Oil & Ref. deb. 1937	25,000,000	5
Skelly Oil deb. 1929	15,000,000	5½
Calif. Pet. deb. 1939	8,000,000	5
Indep. Oil & Gas deb. 1939	6,500,000	6
White Eagle Oil & Ref. deb. 1937	5,000,000	5½
Warner-Quinlan Co. deb. 1942	2,500,000	6
Beacon Transport Co. marine equipment trust ctfs., 1937	2,000,000	6
	$219,000,000	

Finance Production

The investing public has always been keenly appreciative of conditions which reflected limited prospects, and in the case of the oils, the public realized that the necessary financing was occasioned by the need of greater transportation facilities for moving the increased amount of daily production as well as more adequate storage tanks to handle the production which the companies deemed advisable to hold until more favorable conditions of price.

In the case of the companies listed above, the money was necessary to protect the producers primarily during the spring and summer of this year when a huge output was anticipated. The oil companies decided early in the year that the most effective manner of handling any deluge which might occur was to prepare against it by the construction of ample steel storage tanks, and although the output of the nation has increased steadily all through the year, there has been little distress crude oil thrown upon the market, chiefly because greater transportation and storage facilities were available to move and store the product. In the Seminole Field of Oklahoma alone, there is almost 9,000,000 bbls. of crude in storage, and the owners have steadily refused to part with a single barrel of it under the posted price, and in the majority of cases it has been held above the present quotation.

It is doubly significant that over one-third of the total industrial financing of the year is represented in oil financing. The majority of the rails and other industrial corporations issuing bonds do not approach by 1 per cent the oil yield, as the usual industrial bond is a 4 per cent offering.

Against the increased financial structure of the oils, one finds a corresponding increase in the principal assets of the industry, its stocks of crude oil, and transportation and refining equipment.

NIPPON OIL COMPANY

At the sixty-eighth general meeting of the Nippon Oil Co., held in Tokyo, gross profits for the preceding six months were reported at 4,722,024 yen, depreciation and provision for tax bringing a net profit of 3,072,024 yen. Plus the balance brought forward from the preceding six month term a fund of 6,673,435 yen was reported available, of which 3,460,435 yen will be carried forward, 2,800,000 used for dividend and the remainder for regular expenses. (The yen exchanged on March 31, 1927, at $0.491.)

ASCO STEEL
STANDS SUPREME

Our metallurgists are men who have had first hand experience in the Oil Fields. They have studied the performance of Oil Well Tools under the most trying conditions. Asco Steel is being produced to meet these conditions and the increasing demand has proven all that we claimed for it.

DISTRICT OFFICES
502 Cosden Bldg., Tulsa, Okla.
61 Fremont St., San Francisco, Calif.
724 Kohler St., Los Angeles, California

THE ANDREWS STEEL CO.
NEWPORT KENTUCKY

put your treating operations on an Economical Basis

HILL-McCANNA CHEMICAL PROPORTIONING PUMPS

Proper proportioning of chemicals to crude oil or charging stock cuts costs down from many angles — chief among which are the reduction of corrosion and the conservation of chemicals.

Prove to yourself how these efficient proportioners will lower your treating costs and give you better reactions.

A size and type to suit individual requirements.

HILL-McCANNA CO. 2025 ELSTON AVE. CHICAGO

PARMACO
PARKERSBURG MACHINE CO.
PARKERSBURG, W. VA. U.S.A.

For—

Packers

Stuffing Box Casing Heads

Casing Shoes

Write to

PARKERSBURG MACHINE CO.

PARKERSBURG, W. VA.

"The House of Courteous Service"

DRILLER GOES 126 FEET IN UNCASED WELL TO RECOVER BIT LOST IN HOLE

By Frank B. Taylor

CASPER, Wyo., July 9.—William Shrout, a driller for the Parker Club of Colorado, drilling a well near the southern border of Colorado in Las Animas County, startled oil operators of the Rocky Mountain region with a feat claimed to be unparalleled in that territory. He went down in the earth 126 feet in a drilled hole, hitched onto the square of a lost bit that was lying under 2 feet of mud and water and the bit was brought to the surface. The hole was without casing, caving and making 7 bailers of water an hour.

The Parker Club of Colorado is drilling a wildcat near the town of Branson, Las Animas County, Colorado. The structure is only a few miles from the New Mexican boundary and the club expects to make a test of the deep sands so the well is starting with a standard rig and a 24-inch hole. Twenty-four inch casing will be set and this will enable the well to have eight strings of casing down to 5 3/16-inch.

The well has had some trouble at the start, the casing telescoped in a crevice formation and had to be fished out while the hole was straightened. After the hole was straightened and the bit started working on new hole again, the pin was jumped on the big 24-inch bit at 126 feet deep and another fishing job confronted the crew. The hole was somewhat cavey and fishing tools had to come from Borger, Tex. One tool after another was tried on the lost bit without success until nearly every known kind of fishing tool that might possibly catch a 24-inch bit had been brought to the well and run in the hole.

Shrout Suggested Idea

Bill Shrout broached the plan of going down into the hole himself when the well looked as though it would have to be abandoned and the rig skidded over for a new hole. At first the officials of the club refused to consider his proposal, but he renewed his offer to go down several times and as a last resort the bailer was laid down and untied and with a soft rope sling on the sand line in which Bill stood, he was lowered into the hole. Bill went down feet first, standing in the soft rope sling with the hole caving badly and making several bailers an hour from a blue shale in the bottom. Previous to his going down, the crew had run a short string of tubing and rods and this kept the water down while Bill was in the hole.

On the trip down, Bill found a crevice that had caused the trouble with the casing and then he found that cavings had filled up the bottom of the hole so that he could not get at the bit. He signalled for a stop at the crevice and measured his orifice, finding it to be 17 feet in length and 40 feet off bottom, then he signalled to be drawn up and when he came out the tubing was pulled and the hole cleaned.

Made Second Trip

Bill started down a second time, carrying a pinch bar and a log chain. The tubing had been placed in the hole again, but he found the bottom of the hole to be filled with a thick mud that the tubing would not handle. Two feet under this mud he could feel the lost bit lying almost flat where it had been wedged by the fishing tools sent after it. Bill had to put his head under the surface of the mud in order to get his chain around the square of the bit, but he managed to get two half hitches around the square of the bit and then he signalled to come out.

He was in the well 36 minutes on his last trip and he fastened the log chain to a casing line before he came up. The bit came out without any trouble whatever.

Bill stated that the 2-inch tubing vibrating and whipping in the hole bothered him more than did the rock that occasionally fell on his head.

As soon as the bit came out a string of large pipe was run and now the well is making hole nicely. Drilling started seven hours after Shrout came up out of the well. Ross Cooper, field manager of the Parker Club of Colorado, had charge of the well and superintended operations on the surface while Shrout was in the well.

This is the first record, as far as known here, of a man going below 100 feet in a drilled well in the Rocky Mountain region. Usually the gas found even at shallow depths in the shales prevents a person entering a drilled hole at this depth, but in the case of the Parker Club well it seems the gas was absent or not in sufficient quantity to prevent Mr. Shrout from doing work in the bottom of the well.

MARKET VALUE OF OIL SECURITIES ESTIMATED TO HAVE DROPPED A BILLION DOLLARS SINCE 1926

Although the earnings for the first quarter of this year made by the major oil companies which have reported their earnings are moderately in excess of the first quarter earnings for 1926, the market for oil shares has been such a disappointing one that the 30 oil stocks quoted on the New York Stock Exchange show a decline of $559,370,698 in open market value from their high point reached of 1926 to the close of business on May 21. The largest loss was in the shares of Standard Oil Co. of California, which show a dollar depreciation of $131,791,394 in open market value. Three companies, the Standard Oil of New Jersey, the Standard Oil of New York and the Marland Oil Co., exhibit depreciations of more than $50,000,000 each in the open market value.

In only three particular cases of all the oil stocks quoted on the Stock Exchange has there been a gain in open market value. In one, Houston Oil, the gain has been 66 points, due mainly to the fact that the corporation is engaged in public utility expansion rather than in the development of its oil properties. The two other oil shares which have shown an appreciation are Producers & Refiners and Lago Oil & Transport. Of the companies which have suffered losses, Marland has had the widest decline, its shares being 25¼ points lower than the high of 1926. Other declines range from that point downward to 3 points in the case of the Shell Union Oil Co.

The situation in the oil shares on the Stock Exchange has been guided in the main by developments in the oil fields rather than by the earnings of individual corporations. When the market itself was in good condition and when steel, motor, railroad equipment, railroad and specialty stocks were booming and establishing new high marks, the oil shares have been under steady pressure of liquidation.

In addition to the 30 stocks quoted on the New York Stock Exchange, losses on the oil shares quoted on the Curb Exchange and on the over-the-counter market have likewise been tremendous. It has been estimated that the depreciation in open market value of all oil shares, as compared with the high points of 1926, runs well up into the $1,000,000,000 mark.

The accompanying table, compiled by the New York Times, shows in detail the fluctuations of oil stocks, with their appreciation or depreciation in dollars, together with earnings thus far reported up to May 21.

COMPARATIVE DEPRECIATION OF REPRESENTATIVE OIL SECURITIES
Listed on the New York Stock Exchange

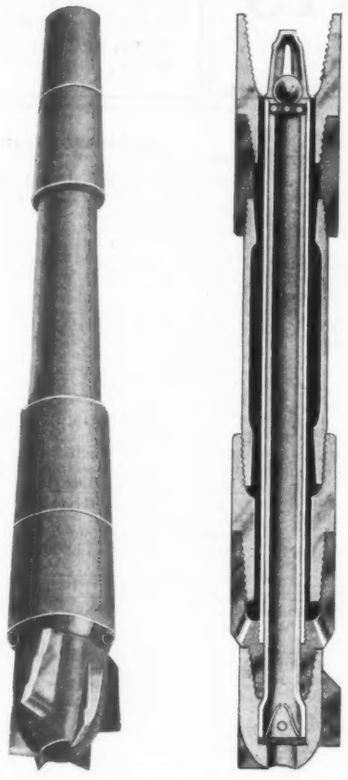
	1926			1927			Depreciation		Dividends		Earnings	
	Shares Outstand'g	High	Low	High	Low	Last May 21	Shares Outstand'g	Net Ch'nge	in Dollars	1926	1927‖	1926	1927
Atlantic Refining	500,000	125⅝	97	117⅞	107	110½	500,000	—17⅞	8,937,500	..	4	YP7,191,000	$
Barnsdall "A"	737,124	33⅛	23⅛	35⅛	23⅛	24¼	1,000,000	— 9¼	443,989	2	2½		
Barnsdall "B"	148,531	29½	22⅛	31½	22	23¼	153,631	— 6	771,335	2	2½	7,030,025	$ 6,547,866
California Pet.	1,809,696	38⅛	29⅝	32⅞	21½	24⅝	1,980,207	—13½	20,232,063	2	2	6,909,510	A7,800,000
Houston	250,000	72	50¼	124⅝	60⅛	138	250,000	+66	B16,500,000	..	..	1,295,582	2,393,883
Independent O. & G.	500,000	34	19⅝	32⅝	18	18½	500,000	—15½	7,750,000	1	1	YP2,975,044	$
Indian Refining	320,459	13⅜	7⅝	11⅛	7⅝	8	328,034	— 5⅜	1,782,039	..	..	YO2,056,766	$
Lago Oil & Trans.	3,926,648	24½	19⅛	32⅛	20½	27½	3,090,388	+ 3	B12,650,794	..	3	5,216,455	$
Louisiana	1,131,762	19⅞	12	18⅛	12¼	12½	1,135,817	— 7⅜	8,296,058	..	..	563,710	530,233
Marland	1,896,230	63⅝	49¼	58½	36	38⅛	2,316,109	—25¼	61,691,824	4	4	16,096,643	19,350,146
Mid-Cont. Pet.	1,357,800	37	27⅛	39⅝	29	31⅞	1,357,800	— 5⅛	6,958,725	..	3	OP3,264,282	3,303,107
Pan Am. Pet. B	1,809,696	78⅝	56⅞	66⅝	56⅜	58⅜	2,421,839	—20	460,073	6	6	SM23,870,915	$
Panhandle P. & R.	198,770	32	4½	18⅞	8	10	198,770	—22	4,372,940	..	..	1,086,239	1,268,406
Phillips Pet.	2,406,796	57½	40	60¼	39¾	43⅜	2,406,796	—14	33,695,144	3	3	9,982,596	12,879,313
Producers & Ref.	229,357	20⅝	11	32	16⅝	30¼	229,357	+ 9½	B2,178,891	..		Y8,592,234	$
Pure	3,038,370	31	25¼	33½	26	26⅞	3,038,370	— 4½	12,533,276	†2	†2	N118,715,185	N138,112,447
Shell Union	10,000,000	31	24	31¾	25⅝	28	10,000,000	— 3	30,000,000	†2	1.40	11,559,191	12,803,425
Simms Petroleum	730,762	23⅝	15½	22⅝	17¼	15⅞	720,808	—12⅜	8,188,385	1	..	1,715,740	1,754,248
Sinclair Consol.	4,489,408	24⅞	16⅝	22⅜	16½	17½	4,501,247	— 7⅜	32,196,696	..	..	F9,510,000	11,339,000
Skelly	1,009,303	37⅛	26⅝	37⅜	25	26¼	1,095,940	—10⅞	8,701,949	2	2	5,420,584	5,654,557
Standard of Calif.	13,016,434	63⅝	52⅝	60¾	50⅝	53½	13,016,434	—10¼	131,791,394	†2½	†2½	YN55,122,014	$
Standard of N. J.	20,538,241	46⅝	37⅝	41⅝	35½	36⅞	24,211,005	— 9½	59,680,117	†1⅛	†1¼	Y1,283,554,860	$
Standard of N. Y.	16,870,016	33¼	32½	34½	29⅞	30½	16,859,931	—38	53,022,610	1.60	1.60	YN71,646,813	$
Sun	1,103,776	41⅝	30⅝	34⅞	30	31½	1,171,476	—10⅛	9,043,182	x1	x1	Y52,235,000	$
Superior	1,121,368	5¼	1	6½	3⅝	4½	1,121,368	— ⅝	841,026	..	..	255,687	1,053,656
¶Texas Corp.	6,118,351	57⅞	53½	58	45	47¼	7,206,996	—10⅝	13,669,003	3	3	Y166,173,513	$
‡Tide Water	2,046,947	39¼	27	29½	23½	16¼	2,158,912	—23	45,361,410	1½	..	16,543,578	19,311,556
Tide Water Assoc.	..	..	..	17½	16	16¼	4,795,209	..	..	..	1.20	$	$
Union Oil of Calif.	1,625,843	58⅝	37¼	56½	39⅝	41⅞	1,629,780	—16½	26,661,545	2	†2½	5,525,000	5,150,000
White Eagle	490,000	29⅝	25⅛	27½	22	24	490,000	— 5⅝	2,817,500	2	2	3,220,628	3,455,032

Total 99,447,725 shares 1926; 1927, shares 110,786,224; Def., $559,370,698.

Average crude oil prices: First four months, 1926, $2.34 per barrel; 1927, $1.75 per barrel.; December, 58 cents per barrel; price May 19, $1.16 per barrel.

Average crude oil production: Week ending March 14, 1927, 2,486,700 bbls.; week ending May 15, 1926, 1,999,000 bbls.; increase, 487,700 bbls.

Notes—*New company. †Partly extra. xPlus 6 per cent in stock. ‖Dividends for 1927 based on latest quarterly or half yearly declaration. Earnings unless otherwise marked are gross earnings for first quarter ending March 31. A Approximate. B Increase. ¶Formerly The Texas Company. ‡Combined with Associated Oil. Y Year ending December 31. YP Year ending December 31 operating profit. OP Operating profit first quarter. S Latest six months' earnings. F Operating profits first four months. N Net. P Quarterly profit. §Not available.



THE PERFECTION CORE BARREL

A DEPENDABLE CORING TOOL

A Larger Percentage of Core Recovery.

Cores any length up to Twenty feet.

Low cost of operation; Perfection Cutter heads will run longer, take more core and cost less.

To remove core, screw off bit head and pull split liner from inner barrel, lay aside one half of same and inspect core.

Five sizes of barrels.

Cutter heads 4¼" to 14".

Write for pamphlet and prices

Manufactured by

OIL CITY IRON WORKS, INC.

SHREVEPORT, LOUISIANA

DISTRIBUTORS:

Wilson Supply Co., Houston, Texas
Bradford Supply Co., Wichita Falls, Texas
Hercules Supply Co., Dallas, Texas

The Valves Called —

Quarter Turn **HOMESTEAD** Quarter Turn

Cost a little more *BUT* Last a great while longer

—on pump house and receiving station manifolds.

—on stills; on tar and hot oil lines.

—for high temperature, high pressure lines.

—on feed-water and blow-off lines.

—and for general refinery services where other valves have failed.

Homestead Quarter Turn Valves get the tough jobs. That's the kind they're built to handle. Test them by comparison in service.

The Homestead General Purpose Valve for the Oil Industry

Says a Refinery Superintendent:

"The reason I put in Homestead Valves is that I think they are the best for general refinery use."

HOMESTEAD VALVE MFG. CO. HOMESTEAD, PENNA.

35 CENTS a line first insertion; 25c a line each additional insertion. Cash in advance.

CLASSIFIED WANTS

CREATE AND BUILD BUSINESS

MAIL your advertisement now. It will be published next week. Cash with order.

FOR SALE—EQUIPMENT

FOR SALE—EQUIPMENT
5 Dean Triplex Pumps, 5 by 8.
1 No. 2, 1 No. 5, 1 No. 6, 1 No. 7, 1 No. 10, 1 No. 11 Sweetland Oil Filters.
Two 10-inch S. Roturbo Centrifugal Pumps. Six 10-inch S. Centrifugal Pumps. Steam Turbine.
Storage Tanks. Send for list.
Send us your inquiries. We buy your surplus equipment.
CONSOLIDATED PRODUCTS CO.
15 Park Row, N. Y. C. Barclay 0603.

NEW Lucey Rex Rotary $6,000. Cost $46,000. Box 653, Kansas City, Mo.

USED LINE PIPE AND CASING FOR SALE
7—25-h.p. used gas engines.
10—6-in. standard rigs.

15,000 ft. 5⅜-in. used casing.
15,000 ft. 6⅝-in. used casing.
10,000 ft. 8¼-in. used casing.
5,000 ft. 10-in. used casing.

75,000 ft. 3-in. used line pipe.
50,000 ft. 4-in. used line pipe.
20,000 ft. 6-in. used line pipe.
For immediate shipment from our Texas yards.
KEYSTONE PIPE & SUPPLY CO.
607 Holmes Bldg.,
Fort Worth, Tex.

ONE 12-inch Landis pipe threading and nipple machine, mounted motor used 90 days, will discount $2,000. Address Twin City Steel Mfg. Co., Minneapolis, Minn.

FOR SALE, ATTRACTIVELY PRICED

Rebuilt P&H Wheel Type Trencher; Model 122. Cuts trench 15, 18 or 21 inches wide; 6 feet deep. Half caterpillar; Waukesha motor. Machine carries manufacturer's new guarantee. R. Young, 866 41st Street, Milwaukee, Wis.

FOR SALE—Complete diamond core drill, or will contract core drilling. St. Louis Exploration Co., 308 Laurel St., St. Louis, Mo.

FOR SALE—Two almost new stills, size 8x36, $400 each. One good 125 H. P. boiler, $400. A. G. Hutton, Box 230, Wichita Falls, Texas.

MAIL YOUR Classified Advertisement now for the Semiannual Review, out July 28.

FOR SALE—Two 28 Star drilling machines. Good condition, well equipped. Located Anderson County, Kans. Address Box 107, Colony, Kans.

FOR SALE DRILLING MACHINES, TOOLS AND CASING
3-no. 27 Star Machines with tools.
1-4" Parkersburg chain machine, tools.
A good assortment of drilling and fishing tools in first class condition.
1100'—12½" casing like new.
Mid-Egypt Gas & Oil Co., Ava. Ill.

1,400 FEET ten inch forty pound used casing, extra good condition. 4-2328; 440 West 29th St., Oklahoma City, Okla.

TENTS, STEEL COTS, pads, blankets, new and used. Specialize on equipping oil field construction camps. Get our prices before buying. We save you money.
DALLAS TENT & AWNING CO.
Dallas, Texas

EQUIPMENT WANTED

WANT TO PURCHASE

One to five used compressors, 30-lb. discharge pressure. Any standard make. Write at once. B. B. Ralph, 529 Highland, Kansas City, Mo.

WANT 2,200 feet 8¼-inch casing; delivery point Monticello, Arkansas. Wire price giving particulars to Wm. M. Brown, President Pine Prairie Oil Co., 119 Southeast 8th St., Miami, Fla.

MANUFACTURING MACHINISTS

CRAGO CUT GEARS
Worthy of your confidence. General machine work. 1416 Walnut, Kansas City, Mo. Phone Harrison 7660.

TANK TABLES

TANK TABLES—Machine Made
Accurately computed, lowest price.
Mid-Continent Tank Auditing Co.
108 Tuloma Bldg., Tulsa, Phone 4-1410
O. R. TISDALE, B. S., C. E.

BUSINESS OPPORTUNITY

LET US MARKET YOUR OIL

Company with completely equipped refinery desires to connect with small independent producer who has oil and no satisfactory outlet.

We have the market.

Will consider 250 to 1,500 barrels per day. Write for proposition.

BOX B-931,
The Oil and Gas Journal
Tulsa, Okla.

JOS. A. LUGAR COMPANY
Fiscal Agents
DeMayo Royalties Corporation
Financing good oil propositions
50 Broad St., New York.

MAIL YOUR Classified Advertisement now for the Semiannual Review, out July 28.

FOR SALE—I have two fruit farms just out of Springdale. 60 & 30 acres; both well located & highly improved. Electric lights in both houses. Mainly apples; some grapes & cherries. Will sell either. Address Owner, E. P. R. Duval, Springdale, Ark.

MUST DRILL 2,560 acres in Panhandle to protect leases. Production close. James J. Culley, Ketchum Hotel, Tulsa, Okla.

YOU CAN BE supplied with information on your securities that you have or intend to buy at $2.00 each. We also make recommendations of good listed securities at this price.
HARRY W. NELSON STATISTICAL SERVICE
Distinctive Investment Counsel
1231 15th St. S. W. Canton, Ohio.

NOTICE

Here is a great opportunity for an oil and gas producing company. I have about 1,000 acres of oil and gas leases in a good location which were laid out by an expert geologist. The location is at Manistee County, Michigan.

Also new oil derrick on the same leases. Derrick 84 ft. high; wooden and ready to install machinery for operation. For sale for the price of derrick construction and material cost or if desired to operate, I will be pleased to arrange to loan the derrick and furnish leases for an interest in the well. For particulars write to

JOHN BASSARAB
Crucible Steel Co. of America
LaBelle Works N. S. Pittsburgh, Pa.

OIL MEN! Attention! If you want to take an oil man's chance with me on a Brown County well for a little money, write particulars. Driller, Box 803, Cisco, Tex.

IF YOU have money to invest in greatest values in agricultural and ranch lands carrying possible oil and gas and other mineral values; let us know in what, and where you wish to invest. We will be glad to serve you. Box No. 723, Phone No. 778W. Duncan, Okla.

BUSINESS OPPORTUNITY

WILL GIVE ONE-HALF interest in NW ¼ of 25-20-10 and SE ¼ 25-20-10 for Turkey Mountain test. Good geology. Bartlesville gas production offsets North and oil production southeast. Box 495, Sand Springs, Okla.

WE CAN furnish necessary capital for development of good oil and mining properties. Let us solve your financial problem. Highest references.
LINCOLN ORGANIZATION
360 North Michigan Avenue
Chicago, Ill.

THE SEMIANNUAL REVIEW
Containing complete statistics of petroleum industry activities for the first six months of 1927, will be published July 28.
It is an extremely valuable issue and will be referred to repeatedly by oil men throughout the year.
Mail your Classified Ad now for this number. You should be represented in it without fail.
CLASSIFIED WANTS DEPARTMENT
The Oil and Gas Journal

CAPITAL—An experienced dependable broker with following will aid in financing a worth while proposition. B. W. 810 Broad St., Newark, N. J.

DRILLING BLOCK, on large tract in Florida, prefer contractor with standard outfit capable going 4,000 feet. 20 test holes reported being drilled in state. Address, The Texas Oil Company, Inc., Box 3908, Orlando, Fla.

735 ACRE DAIRY FARM
6 Miles north of packing house, now wholesaling $1,500 worth of milk per month. Price $100 per acre. Would consider some trade. For further information address
MARK RALEY
1421 Hurley Ave.,
Fort Worth, Texas

MANUFACTURERS needing capital on small bond issues, investigate my proposition. Extensive clientele. Commission basis. Write G. Pickhardt, 4631 N. Racine Ave., Chicago, Ill.

FINANCE your project with stock bonded. Quickest and most satisfactory known method of raising capital. Information free. Bankers Interstate Security, Electric Bldg., Denver, Colo.

YOU HAVE the capital. I have the experience. Let's get together. Robert Berney, Owensboro, Ky.

1,500 ACRE ranch in Lampases County, all open prairie land. Clear of indebtedness. Will trade for clear income property in Texas. Address Owner, Box 236, Clifton, Texas.

A ST. LOUIS OIL COMPANY
Well established and completely equipped storage plant, tank and delivery trucks, service stations, etc.; excellent personnel; distributors nationally advertised brand gasoline and oil. A real buy. Address Box B-880, The Oil and Gas Journal, Tulsa, Okla.

FOR SALE—PETS

WHITE COLLIES for sale—One brood matron; one male pup 2 months old. A. K. C. registry. Dr. Knotts, Stillwater, Okla.

POSITION WANTED

WANTED — Position supervising the construction or operation of natural gasoline plants by a man with the best of references and a thorough knowledge of the game. Box B-932, The Oil and Gas Journal, Tulsa, Okla.

PRODUCTION SUPERINTENDENT 25 years experience in all fields where different sands are encountered, familiar with all details and geology; desires change; best references. Box B-896, The Oil and Gas Journal. Tulsa, Okla.

MAN WITH 18 years experience in steel erection of oil refineries, such as steel plate, structural, handling and raising heavy equipment, dismantling and re-erection. Also considerable experience in concrete, brick and building construction. Wishes connection with progressive company. Can furnish the best of references as to my ability. Age 35. Box B-912, The Oil & Gas Journal, Tulsa, Okla.

HELP WANTED

SEVERAL FIRST CLASS Engineering Draftsmen and checkers for concrete designing, structural work and tank design in connection with oil refineries, permanent positions. Give age, experience, reference, salary, and date available. Box B-922, The Oil and Gas Journal, Tulsa, Okla.

YOUNG MECHANICAL ENGINEERS wanted with some natural gas or oil field experience. To work into Consulting Engineering Department. Box B-930, The Oil & Gas Journal, Tulsa, Okla.

FOREIGN WORK
Men wanting work with the large oil companies in foreign fields write immediately to the Foreign Service Company, Cotton Exchange Bldg., Fort Worth, Tex.

FOREIGN WORK MEN interested in oil, mine, railway work., etc., in South America, write at once. South American Service Bureau, 14,600 Alma, Detroit, Mich.

GEOLOGIST

H. L. BALDWIN
Petroleum Geologist
Telephone 74
Fort Stockton, Tex.

ENGINEERS

E. A. HERBIG & COMPANY
Expert testing and repairs on all kinds of gas meters, meter clocks, and vacuum and pressure gauges. Physical testing and charcoal testing. Charges reasonable.
Phone 3-7543
402 Central National Bank Bldg.
Tulsa, Okla.

MONEY RAISING

DO YOU NEED MONEY for organizing or financing oil or mining deals? Write 131 E. 13th, Oklahoma City, Okla.

MAIL YOUR Classified Advertisement now for the Semiannual Review, out July 28.

PATENT ATTORNEYS

REGISTERED PATENT ATTORNEYS
United States and Canada
Before disclosing your invention to anyone, send for blank form.
Evidence of Conception
Bulletin "How to Establish Your Rights" and complete information free.
LANCASTER & ALLWINE
240 Ouray Bldg., Washington, D. C.

OIL INDUSTRY PRINTING

Beginning our 18th Year
OIL FIELD LEGAL BLANKS
Leases, assignments, releases, township books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

CONSUMERS' LEDGERS
We are prepared to furnish from stock standard forms of gas meter Consumers' Ledgers. Sample forms and quotations on request. First-class material and workmanship.
DERRICK PUBLISHING CO.
Oil City, Pa.

INCORPORATIONS

DELAWARE incorporators. Charters fees small, forms. Charles G. Guyer, 901 Market St., Wilmington, Del.

CHARTERS—Delaware best, quickest, cheapest, most liberal. Free forms. Colonial Charter Co., Wilmington, Del.

35 CENTS a line first insertion; 25c a line each additional insertion. Cash in advance.

CLASSIFIED WANTS

CREATE AND BUILD BUSINESS

MAIL your advertisement now. It will be published next week. Cash with order.

LEASES—PRODUCTION

NEW MEXICO STATE LEASES
Complete abstracts of title, full records of present ownership all State leases in any township prepared by
F. S. DONNELL, Bonded Abstractor
Santa Fe, N. Mex.

Sec. No. 436, Blk. D, Jno. H. Gibson Sur., Yoakum County, Texas; $1.50 bonus; 50 cents rental 5 or 10 yrs. or $5 per acre for royalty. C. B. Alexander, 1929 So. Fifth St., Abilene, Tex.

WILD CAT
50,000 acres Hudspeth County, Texas; $1.50 bonus, $1 to State. Think it over. Clyde Realty Co., Clyde, Tex.

GAINES and Yoakum Counties, cheap leases. Drilling blocks Lynn and Terry Counties. Will furnish geology, 3,500-foot test; small bonus. F. P. Simpson, 517 Worth Bldg., Fort Worth, Tex.

MAIL YOUR Classified Advertisement now for the Semiannual Review, out July 28.

SOUTHWEST TEXAS — WINKLER, Loving, Reeves, Ward, Pecos, Culberson Counties.
Drilling blocks, Leases. Royalties. Ranches in fee.
H. F. Anthony, Pecos, Tex.

FOR SALE—Leases and production in Warren, Allen and Barren Counties. Have leases in Barren County joining producing leases and some within half-mile to 1 mile of production. W. P. Harley, Bowling Green, Ky.

FOR SALE or Lease—Forty-four acres, well improved, one-half mile C. I. A.; $8,000; one-half mineral rights; $9,000 all. M. W. McMinn, Box 715, Denton, Tex.

LEASES; drilling blocks; fee lands; anywhere; confidential reports; information. Box 620, Fort Stockton, Tex.

FOR LEASE
19 surveys Block G-14; 21 surveys Block G-15, Brewster County, Texas, will lease all or part; make best offer. Fee owner, Earl K. Duke, P. O. Box 1099, Wichita, Kans.

COMPLETE ABSTRACTS of title to all lands in Winkler County, Texas, compiled by Kermit Abstract Company, Kermit, Texas.

FOR SALE in Breathitt County, Kentucky, 2,000 acres, six wells, present production 20 barrels; all proven territory. Plenty of gas for operating.
E. D. WATKINS
Irvine, Ky.

5-YEAR STATE OF NEW MEXICO LEASES
2,000 acres scattered Quay and Guadalupe Counties 50c per acre. 1,400 acres Quay County 75c per acre. 280 acres on New Mexico-Texas line Roosevelt County $1.50 per acre.
WYLIE-BLINEBRY, INC.
319 Martin Bldg.,
El Paso, Texas.

"IN THE TREND"
Southeastern New Mexico and West Texas counties — Lea, Eddy, Chaves, Gaines, Andrews, Winkler, Loving, Ward, Culberson and Pecos Counties, oil and gas leases, royalties and drilling blocks. We buy and sell. F. S. Blackmar, P. O. Box 541, Roswell, N. Mex.

FOR SALE—Selected oil and gas leases adjoining producing and drilling leases in Barron County, Kentucky. At right prices. J. C. Preston, Glasgow, Ky.

LEASE LAND, sell royalties; Howard, Glasscock, Andrews, Martin, Terrell and Pecos Counties. One dollar an acre up. Joe Cunningham, Big Springs, Tex.

2,000 ACRES adjoining Standard Oil's 4,000 barrel well at Walden; will sell all or part or will lease; also have 150 barrel well at Florence on 480 acres. Apt. 10, 325 East 18th Ave., Denver, Colo.

FOR SALE—1,900 acres oil leases near Heritage and Red Boiling Springs, NE cor. Macon County; NW cor. Clay County, Tennessee; 25 cents per acre. E. C. Silvers, Leesburg, Ind.

LEASES—PRODUCTION

OIL LEASES and royalties, Ector, Crane, Pecos, Reeves, Ward, Upton and Winkler Counties; buy or sell. C. H. C. Anderson, 712 Linz Bldg., Dallas, Tex.

DRILLING BLOCK secured on approved acreage and well supervised; no bonus; we keep some acreage as fee. Nicolle, Petroleum Geologists and Operators. Box 1720, Fort Worth, Tex.

SOUTHEAST NEW MEXICO
Can furnish practically proven leases in Artesia Field, Eddy County. Also other tracts in Eddy, Chaves and Lea Counties. Particulars on request.
H. T. ORCUTT
1114 Colcord Bldg., Oklahoma City, Okla.

PRODUCING lease Greenwood County, or will give one-half interest for well drilled. Andrew Miller, Bitting Bldg., Wichita, Kans.

PECOS COUNTY FEE LAND

100 Per Cent Oil, Gas and Minerals
Good level fee land located near Fort Stockton, Pecos County, Texas—all oil, gas and minerals go with the land. Will sell in tracts of 5, 10, 20, 40, 80 or 160 acres. Splendid oil and subdivision possibilities. Priced low. Terms very reasonable.
A. L. HILLER
First National Bank Bldg.
Fort Stockton, Texas

80 ACRE lease Section 6, J. Pointevant Survey, Wheeler County, Texas. Investigate and make offer. F. P. Works, Amarillo, Texas.

WEST TEXAS

Val Verde County, 11 sections, faces both sides Pecos River. 10-year paid-up lease for $1. Listen, this is cheaper than you would buy if you went on the ground and it has real possibilities. Visualize, if you will, an area larger than the State of Oklahoma, barely scratched, with oil in many places and you have the Oklahoma of 15 or 20 years ago and the "West Texas" of today.
J. S. JONES
First Natl. Bank Bldg., Ft. Stockton
"The Hub of West Texas"

MAIL YOUR Classified Advertisement now for the Semiannual Review, out July 28.

320 ACRE LEASE, $4 per acre, 1¾ miles S. E. Ohio well and S. W. of Midwest well, Quay County, N. Mex. K. E. Drake Jordan, N. Mex.

LEASES around the V. T. Bolin well in Howard's Draw, south central Crockett County, Texas, in direct trend from Yates Field across river in Pecos County. Well fully financed and now setting 10-inch casing at 2,110 feet; contract depth 3,500 feet. Write for maps, prices, etc. V. T. Bolin, 510 Floyd Holmes Bldg., Fort Worth, Tex.

WINKLER—PECOS COUNTIES
Leases and Royalties
W. S. PATTERSON
Pecos, Texas.

TO THE SMALL INVESTOR

The average success in wildcat drillings is one producer out of every four tests.

For $10 I'll agree by contract to carry you in on a one-fortieth interest in four 40-acre New Mexico leases estimated to be located on structure and near drilling wells in four different counties.

I will pay the expenses and pro rate the ultimate profit when leases are sold.
CHAS. E. PARROTT
Arcade D, Amarillo Bldg., Amarillo, Tex.

LEASES—PRODUCTION

RIGHT IN THE TREND—
BREWSTER COUNTY
FIVE YEAR PAID UP OIL AND GAS LEASES
CLOSE-IN TO DRILLING WELL
I am drilling at 240 feet about 10 miles southwest of Alpine, Brewster, County, on geology approved by I. J. Broman. I offer some choice five year paid up oil and gas leases close to my well, or spreads at a low price. Write for full particulars immediately. Location looks similar to Yates Pool—right in the basin with plenty of outcroppings that can be worked geologically. Invest from $50 to $5,000 at special low price.
VAN McPHAIL,
1211 Fort Worth National Bank Bldg.,
Fort Worth, Texas.

ROYALTIES—PRODUCTION

J. F. MARION OIL COMPANY
Magnolia Building
Dallas, Texas
Buys and sells Texas Oil Leases and Royalties

NOTICE
Offering undeveloped and producing royalties, leases and drilling blocks, Brown (Fry Field area), Coleman, Callahan and Shackelford Counties, Texas.
All offerings submitted will be accompanied by geological information.
M. ELDER & COMPANY
Coleman Hotel Bldg., Coleman, Tex.

LEASES, ROYALTIES and drilling blocks, Pecos County, Texas. Box 653, Kansas City, Mo.

BARGAINS IN PECOS VALLEY

Texas Royalties and Leases.

WATSON

Room 922
30 N. Michigan

Chicago, Ill.

ROYALTY BUYERS—I own several pieces of royalty offsetting and near offsets to production in the Panhandle, mostly in Gray County. Will sell one of these for expense money. This is your chance to take advantage of the slump. Write or wire for particulars. W. H. Mahon, P. O. Box 528, Amarillo, Texas.

LEASES and half royalties, Caddo, Blaine and other counties. Write for complete list. A. E. Baldwin, Anadarko, Okla.

ALSOBROOK & SONS
1524 Post-Dispatch Bldg.,
Houston, Tex.
We buy and sell Texas Oil leases and Royalties.

WANTED

NEWLY organized corporation, wants blocks for drilling; ample capital. Morey Oil Co., Hotel Tulsa, Tulsa, Okla.

WE WANT DEPENDABLE data and price on good size blocks medium priced Texas acreage proven or semi-proven for gas and oil. Especially interested in Texas gas lands. W. T. & C. C. Doyle, Southwestern Life Bldg., Dallas, Texas.

CAN HANDLE several drilling blocks and leases in promising West Texas counties. Write fully. Box 1020, El Paso, Tex.

WANTED—WET GAS CONTRACTS
We want wet natural gas for casinghead plant. Will start erection immediately. Give volume, gasoline content. Contract Dept., Wm. H. Allen, 1215 Detwiler Bldg., Los Angeles, California.

WANTED — Shallow or deep production from 100 bbls. to 3,000 bbls. daily. Must have reasonable amount of undeveloped acreage. Full description first letter required from owners only. Box B-870, The Oil and Gas Journal, Tulsa, Okla.

SUMMER RESORTS

WHY NOT YOU BUY an ideal all year round home. On top of the Ozark Mountains. 330-acres, including two miles of White River. Highly improved, and modern in every way.
Complete in every detail. Very productive. One-half in cultivation.
Ideal for home, club or colony. Ten-room modern house, with heat, light, baths and running water.
On State Highway, four hours' drive from Tulsa.
Cash or terms. No trade. Write Owner.
Charlie H. Clouston, Rogers, Ark.

FOR SALE—In Ozarks 164 acres, with ¼ mile river frontage, suitable for summer home or resort, fine fishing and hunting, quiet and seclusive. Address K. Gilmore, Steelville, Mo.

BELVEDERE BEACH
South Haven, Mich. On lake. Same management 29 years. Near all resort amusements. Write for Booklet. Mrs. Ralph E. Histed.

THE SEMIANNUAL REVIEW

Containing complete statistics of petroleum industry activities for the first six months of 1927, will be published July 28.
It is an extremely valuable issue and will be referred to repeatedly by oil men throughout the year.
Mail your Classified Ad now for this number. You should be represented in it without fail.

CLASSIFIED WANTS DEPARTMENT

The Oil and Gas Journal

SAN ISABEL—National Forest, near Pueblo, Colo.; one or two day scenic trips through beautiful San Isabel. Comfortable buses or 7-pass. cars. Free booklet. San Isabel Trans. Co., Pueblo, Colo.

GOODMAN'S BIRCHDALE VILLAS
A high class summer resort on Whitefish chain of lakes. Fishing, bathing, rest, recreation. Write for rates, information.
PEQUOT, MINNESOTA

FOR SALE—64 Acres very fine lake shore on Pokegama Lake, Itasca County, Minn. 1 summer resort furnished. Cottages to rent. Robert Loux, Grand Rapids, Minn.

MEDICINE LAKE LODGE
A Wisconsin resort. You want to go—don't know where to go—don't want to make a mistake when you do go. Go to Medicine Lake Lodge. Electric lights, running water, good beds, good eats, boating, bathing, fishing, dancing, hiking. Write for booklet. Rates—you'll be surprised.
J. E. DOWDEN, Three Lakes, Wisconsin

WRITE E. R. RUGGLES, PROP. of Hotel Idlewilde, Osakis, Minn., for booklet; 26 years experience in satisfying the Southern tourist. One of the founders of the Ten Thousand Lakes Association. Modern hotel and cottages. American plan. Splendid fish.ng. Accommodates 150 guests.

THE CURTIS HOTEL,
Minneapolis, Minn.
In the heart of Minnesota's famous lake region. Largest, most distinctive hostelry in the city. Average rate single room, private bath, $2.50 the day. The ideal hotel for motor parties and tourists. Excellent cuisine.

THE SAYNER
Hotel and Bungalows
Sayner, Wisconsin.
A modern hotel for the discriminating guest. Private baths. Excellent food. Golf, fishing, swimming, boating. S. M. Sayner, Prop.

Strong Gasoline Market in Chicago

Fair Demand First of Week. Speculation on Duration of Strike Ends in Disaster to Buyers

By J. B. Waldo

CHICAGO, July 11.—There was a litle flurry of buying from the smaller local distributors late Saturday who thought that the trouble with the station employes would not be settled. They planned to reap a harvest selling over the week-end. The strike was ended and today many are trying to have the cars taken back or to cancel the orders not delivered. It is evident now that many of the country distributors overbought for the national holiday but the present consumption is so large that any excess of stocks should be soon out of the way. The demand in the spot market on Monday was fairly large but no rush of business was noted. The demand is showing a steady increase and it is believed that sales will be more rapid when the surplus supplies in dealers' tanks are cleaned out.

On the other hand, offerings from refiners are free and there is no tendency here to ask a higher price than 7 cents for U. S. Motor gasoline. This is the only price that is quoted today for regular stock from usual sources. The market is strong at that price. There is no change in the position of the market for the higher tests. Kerosene is being offered under 4 cents by one refiner and while others are asking higher prices 4 cents is the selling price. Distillates, gas and fuel oils continue unchanged both as to price and the demand.

The weather conditions have been just right for gasoline consumption and the outlook is for a continuance of real gasoline weather over this part of the territory.

The business done in the spot gasoline market last week proves for one thing the importance of the marginal contract in the refined oil industry. There was a very large consumption over the Fourth of July holiday. Seldom has the country as a whole enjoyed more favorable weather. The weather map showed almost no storms and these were not heavy and for the most part in the mountain states. Yet the spot business following the holidays was not above normal for the season of the year. There was a large movement on contracts according to the refiners' offices in this city, but the spot demand was not strongly in evidence. What spot business was done was in the small lots, a limited increase in the number of the orders placed but no increase in the size of the average individual order. Consumption continues large and just as the two or three days preceding the Fourth witnessed a decided increase in the business done in the spot market, so the trade is hopeful that there will be a gradual adding to the size as well as the number of orders. It is very evident that the great majority of the dealers in this territory at least, receive supplies sufficient for their average requirements through marginal contracts.

Gasoline Contracts

There is a good deal of argument at this time over the matter of contracts, the kind of contracts and the desirability of contracts at all, and the prediction is made by some that there will be a less number of contracts made next year than during the past two years. Judging by the past record which is of a constant increase in the number of concerns making contracts for their gasoline supplies, if there is a decrease in the number and importance of the contracts made it will be because the refiners are not satisfied with the results from the system of marginal contracts as made in the past. There have been practically two systems of basing prices in these contracts. Those in which the price is based on the tank wagon price and those in which the selling price of the gasoline under the contract is based on what is called the spot market price. All others have been combinations or variants on these two systems. Neither have given complete satisfaction for the reason that they each fail to make a mutually satisfactory division of what profits there may be, between the refiner and the distributor. Each season something has been added to or taken from the contract forms, that was intended to meet the objections of either refiner or dealer.

In spite of the objections of both parties, the advantages of a contract are so obvious that it is very certain that the system of contracts will be continued until as the result of study based on experience, a contract will be evolved that will be at least reasonably satisfactory to all parties to the contract. It seems to some that the real trouble is that too much attention has been given to the demand feature of the business and too little to the costs of either refining or distributing. Of course costs have little to do with the immediate selling price of the article. The market is the price which buyers will pay for any commodity but the maker of that commodity will not continue to manufacture a product that he cannot sell at a profit. The refiner or the marketer cannot even if he wanted to do so, keep on refining and selling his major product at less than cost plus a fair profit. Several refiners and a number of refiners together have under discussion forms of contracts which they hope will be mutually satisfactory to themselves and their distributors which take into consideration the costs of refining and selling as well as the added fact that the system of marginal contract obliges the refiner to carry the stocks to a much greater extent than the former method of buying in the spot market which takes quite a load from the dealer as well as enables the dealer to conduct his business on a smaller capital for the volume of sales than formerly. The habit of contract making has become so ingrained in the industry that there are many refiners and an even larger percentage of the dealers who would be very much at sea if they were obliged to do without marginal contract over the year for the bulk of their gasoline supplies.

Demand for U. S. Motor

The demand has continued almost entirely for the U. S. Motor grade. At the present costs of gasoline there is no incentive to use anything lower in price and the demand for the 56-58 450 gravity is practically at a standstill. The call for the higher tests is very limited. Some believe that the antiknock and other special gasolines have taken the place of the grades above the U. S. Motors and others that the improvements in that grade with better engines, roads and drivers have made the U. S. Motor grade "good enough for anybody," as some oil men express themselves. The lack of demand for the higher gravities is shown by the list of prices. One day last week purchases of U. S. Motor were made at 6¾ cents out of Group 3, and of the 60-62 400 endpoint at 6¾ cents out of north Texas making the cost of the higher gravity only a little more than one-eighth cent greater to the buyer, who paid the freight.

There is little disagreement as to the Chicago market for the U. S. Motor grade. Several call the market 7 cents firm and others 6⅞ to 7 cents and firm. The refiners with one prominent exception are holding for 7 cents but there are several marketers who have gasoline that they will sell at 6⅞ cents and one prominent member of the marketers sent out a market letter late last week offering U. S. Motor gasoline at 6¾ cents with deliveries over one week. The same letter offered 60-62 400 endpoint at 7 cents. This was the lowest price openly quoted by seller in this market and most of the local industry believe that the quantity available at this price is small and will be quickly absorbed by the trade but they have little idea here that the price will hold at substantially above 7 cents for the U. S. Motor grade.

Kerosene Inactive

There has been very little of note in the kerosene market here. Distributors report that their June sales were large—much larger than a year ago—but this was because the season was late and the consumptionn that would ordinarily have been had in May was not felt until June. They figure that the demand for kerosene for tractor use is about over and that the next active demand will come with the fall threshing. Some refiners are asking 4¼ cents but the 41-43 gravity is being rather freely offered at 4 and 4⅛ cents with no great number of buyers.

Distillates Contracts

Distillates for next season are being sought by some of the largest distributors. They want to buy a considerable quantity to be shipped and stored but they offer prices that are below the present market price. Their idea of the market is 2⅞ to 3 cents and this is below the price at which refiners are willing to sell. Several refiners have named their price for the coming season and show samples of their product. The samples are much the same as those previously shown and are better adapted to the use as furnace oil than in some previous seasons. The distillates are usually light amber or straw in color, have a flash point of 180 degrees or under, a cold test well under zero and are treated for odor and are clean. Such oil will serve practically any domestic oil heater. One large refiner has announced a price of 4½ cents flat over the season while another equally large is making a price of the market with a minimum of 3½ cents and a maximum of 4½ cents. The gravity of the latter is a little lower than that of the first named but the flash and cold test are same. Makers of domestic oil burners have stated that gravity was of little or no importance provided the other specifications were right but the average dealer is prejudiced in favor of the higher gravity other things being equal.

Their actual spot sales have been of scattering cars, for early delivery with prices ranging from 3 to 3⅛ cents for the 36-38 gravity and 3¼ to 3⅜ cents for the 38-40 gravity. Some are asking 3½ cents but have little to sell. One refiner when asked why he did not make a flat price said that the trouble was that the dealers would hold out on their shipping instructions so long as they could buy for less than his flat price in the spot market and if by any chance the market advanced beyond his flat price they would want their entire requirements. Some contracts have been signed of both kinds. Some of the larger dealers would like to fill their tanks at the present market price and then wait until later in the season before making any additional purchases.

Gas Oil Firm

Gas oil while not very active from point of orders entered has been very firmly held. Several refiners have stated to inquiring buyers that they were storing the gas oil and had none to sell at present and generally the offerings are light. This is what is holding the market right now for the demand is not very active. There were some important distributors going the rounds of the oil offices last week asking for gas oil. They were prepared to do business if the sellers would see the price situation as they did. They wanted a straw gas oil with a low cold test and a flash under 200 at a price of 2½ cents or less. Others inquired by mail and phone. They are not believed to have been successful in making any purchases at that price.

The Texas Company is locally stated to be in the market for considerable quantities of straight run gas oil for which it was paying prices that depend upon the freight rate but averaging better than 2½ cents. The buying by the utility companies is from the smaller and commonly the more frequent buyers. The demand for light straw gas oil that has developed from distributors of burner oil has enabled some refiners of this grade to ask as high as 3½ cents. The Louisiana refiners are still shipping their product to the southern users. Several refiners have made offers to consumers but their prices have been as a rule higher than the buyers were willing to pay. Some demand is noted for gravity below the 32-36 grade but having a low cold test and flash which when obtainable is an ideal fuel for some of the burners that do not insist on having a light oil. This oil also makes a desirable Diesel engine oil the demand for which is gradually increasing.

Fuel Oils Steady

Fuel oil has not changed as to price or demand during the past week. The period of the year is now on us when several of the important industries that are large users of fuel oils decrease the extent of their operations largely because of the heat. Steel companies are now at their low level of output, the U. S. Steel Co., operating at 55 per cent of capacity or less. The auto plants are working on their summer schedule. Many of the glass and some brick and cement plants are closed down for repairs and vacations but also because it is difficult for the men to work when the mercury is as high as it usually averages during the summer. This is one reason for the slackening of the spot demand as well as for some reductions in the shipments on contracts. This is an annual condition. Quite generally the large industries appear to be more certain regarding the fall business and this feeling of optimism is more or less directly traceable to improved crop conditions as reported from several sources.

Many buyers are still placing their orders for immediate needs only and are seeking for the very best prices obtainable. Refinery representatives as well as the marketers of fuel oil all state that it is difficult to secure business on anything like a profitable figure. Occasionally a limited amount of oil is offered at less than the full price but usually there is something that makes it less desirable for general use. A quantity with a high cold test was sold here at 5 cents under the market for the gravity but it found a ready buyer. In many instances there is complaint of the delays in securing deliveries and some of these are due to the fact that the oil was sold short and the seller has not been able to cover. Many of the buyers now ask before ordering if the seller is in position to guarantee deliveries as agreed. There are quite a number of inquiries in the market for contracts but there is no change in the attitude of the buyers who are looking for prices at or near the present bottom price for the year or the winter. Stocks are reported to be reduced and this adds to the firmness of the market by enabling the refiners to maintain their price. Buyers admit the firmness of the market but are cheerfully expecting the unexpected to happen and give them their opportunity to buy at less than they can at present. From this it will be seen that the market is

dragging along just as it has been for three or four months and it may drag until the late fall unless something happens to change the attitude of the oil buyers. Many of them say that they see no advantage in the fuel oil contract. There is one large user of fuel oil in a neighboring city who has not had a contract for 10 years and figures that the concern has profited greatly by so doing. They buy when the buyer receives a requisition from the engineer and buy for immediate shipment to be taken into their own storage. This method of buying fits in well with the live selling organization but is disliked by refiners who prefer to contract.

There is very little to be said regarding lubricating oils. The general report is that business in motor oils and greases is good. There have been no price changes. Some comment is made on the practice of selling lubricating oils on consignment, a plan which is said to be growing and is used by some well-known concerns in the line. The new business in exports is light but there is more or less deliveries all the time on orders and contracts. Foreign buyers like American lubs and in some countries where the sale of other refined products from America have declined the demand for lubricating oils has actually increased. The plan previously mentioned of selling pumps and a supply of oils to an investor and then placing the output in some place where lubricating oils are sold is being heard from in various parts of the country. It is reported by one salesman as being introduced in Milwaukee and another states that he heard of the plan in Lincoln, Neb.

COMPETITION IN IRAQ IN MARKETING OF OIL

In Iraq and on the Persian Gulf, oil products are now being sold by the Anglo-Persian Oil Co., Ltd., the Khanaqin Oil Co., Ltd., and an American company. The Anglo-Persian draws its crude from its wells in the Ahwaz area and its refined products from the Agadan refineries near Basra; its products are sold in Persia and in the territory adjacent to the Persian Gulf. The Khanaqin is a subsidiary of the Anglo-Persian and has so far been drawing supplies from the same source, but it sells in Iraq only. It is reported that this company will soon begin to get its crude from its own fields near Khanaqin and its products from a new refinery at Alwand; it has already built service stations at Baghdad and Basra.

The American company obtains its supplies from America and its sales operations cover the same ground as occupied by the Anglo-Persian. It has local agents in all principal towns and a European representative who visits local territories periodically.

A fourth company in this territory is the Turkish Petroleum Co., Ltd., which obtained a concession in 1924 adjoining the Khanaqin fields. It appears probable that this company will be able to enter the market in time.

PENNSYLVANIA MARKET

OIL CITY, Pa., July 8.—Although there has been improved demand during the past week for some of the leading petroleum products in the Pennsylvania refined territory, there does not appear to be any possibility of higher prices for the near future.

Gasoline is in good demand at present prices. Actual consumption has been excellent during the past week, the weather over the Independence Day holidays being very favorable for motoring. The touring season has started in earnest and automobiles are out in record numbers.

Kerosene movement was good during the week, but the prices continue low. Fuel oil was stronger. Neutrals are still in good demand and are pretty well bought up throughout the Pennsylvania area. Steam refined was quiet and cheap without much change during the week. Was was stronger, in fact, it now seems to be pretty well bought up in the Pennsylvania refined district.

GASOLINE WEAKER ON ATLANTIC COAST; RETAIL PRICE REDUCED

By N. O. Fanning

New York Bureau, The Oil and Gas Journal, Room 629, No. 101 Park Avenue, New York, N. Y.

NEW YORK, July 9.—Recent appearances of improvement in the refined oil markets along the Atlantic Seaboard gave way to weakness in the past few days, when numerous service station operators in New York City and vicinity reduced retail prices 2 cents a gallon. Gasoline is now available quite generally for 20 cents. This is the first time this year any special weakness in the retail market has revealed itself in Greater New York.

In addition to this leading refiners reduced motor gasoline at refineries to 8¾ cents, which is the low price of the year. They had a few weeks previously advanced the price from 8¾ to 9 cents, and some even asked 9½ cents, but apparently this move did not meet with success.

Heavy receipts of California gasoline continues the rule, while service station competition is working on that end of the line to bring prices down. Weather conditions have limited consumption to some degree. The seaboard has witnessed the coolest June and July in years. Although aggregate consumption will doubtless show a gain over a year ago, the increase will not be as large as refiners had hoped.

Kerosene Weak

The kerosene market shows no improvement. Prices are at bottom. Refiners are selling water white for 7½ cents, but some prime white kerosene is being imported and offered at 6¾ cents. In Baltimore the tank wagon price of kerosene continues at 10 cents a gallon.

Gas and Fuel Oil

The market for gas oil is also weak. Although most refiners continue to quote 5½ cents for 28 plus in tank cars, buyers are holding out for one-fourth cent less. Activity is limited at this time, however.

Fuel oils are firm, but reported weakness at the Gulf will doubtless be reflected here. Fuel oil is coming in in large quantities from Venezuela just now. Many factors do not expect to see fuel oil prices hold on the Atlantic Coast much longer. Refiners are quoting $1.65 a barrel for bunker oil to the trade, but in cargo lots it is available for around $1.25. Diesel oil is more steady at $2.20 a barrel.

Lubricating Oils

The lubricating oil market is quiet and prices unchanged. Pale and red paraffins are especially dull, and prices tend to be rather soft. Cylinder oils are in better demand for both domestic and export consumption.

Paraffin Wax

Wax prices are holding firm. Refined wax prices range from 3⅞ cents a pound to 5 cents for melting points of 120 to 137. These quotations have ruled for the last few weeks.

Petrolatum

Petrolatum is somewhat more active. The only change is recorded in cream, which was advanced one-eighth of a cent a pound to 5⅝ cents.

The Export Market

That Russia continues to be an important factor in the export situation is indicated by the extension of contracts between Standard Oil and the Soviet oil syndicate covering purchase of oil for Near and Far East markets.

The Vacuum Oil Co. plans to continue contracts by which the company has been purchasing and marketing Russian oils in central Europe. The Standard Oil Co. of New York has contracted for a five-year supply of fuel oil, covering a minimum of 500,000 tons, for marketing in Turkey, India and intermediate points at seaboard. The contract is understood to be for bunker fuel oil "C," and the price equivalent to about $1.25 a barrel, fo.b. Gulf of the United States. This agreement follows previous contracts by the Standard Oil Co. of New York with the Russian Naphtha Syndicate. They included, in addition to small supplies of gas oil and kerosene for the Near East, a contract made December 20, 1926, for a three-year supply, with three-year renewal option, involving a minimum of 1,000,000 tons of kerosene.

The New York export market was more active during the past week, with liberal bulk sales of both gasoline and kerosene to European buyers. During the week more than 5,600,000 gallons of gasoline were exported. This included some antiknock gasoline bound for Holland.

The export demand for paraffin wax is steadily improving. Although crude still holds the upper hand, sales of refined are also showing an increase, which, though gradual, indicates a possible definite change for the better. It is believed that stocks of refined wax abroad are unusually low at this time, and this may offer an opportunity for American refiners to reduce some of their surplus.

Petroleum Exports

The following table shows principal exports of petroleum and petroleum products from New York during the last three weeks (all figures in gallons unless otherwise noted):

	Week Ended		
Gasoline—	July 6	June 29	June 22
Bulk	5,625,250	.....	3,195,600
Cases	1,296,160	623,000	906,090
Kerosene—			
Bulk	1,646,400	.....	3,437,590
Cases	1,213,990	1,553,050	516,740
Lubricating oil—			
Bbls.	818,950	1,333,350	1,202,100
Cases	188,840	189,700	130,270
Lubricating greases—			
Bbls. (lbs.)	.....	153,400	356,850
Paraffin wax—			
Bags (lbs.)	943,800	1,844,920	418,000
Bbls. (lbs.)	1,259,225	712,025	686,000
Petroleum asphalt—			
Bbls. (tons)	1,262	267	1,411

The foregoing figures include all shipments of 500 bbls., 1,000 cases or over.

Tanker Charter Market

The oil tanker charter market was fairly inactive during the past year. One vessel taken for 1928 is still under construction. It is the tanker "Svolder," and was chartered for March-April, 1928, loading, from Gulf to Helsingfors at 28s. 6d., or from north Atlantic, 24s. 6d., gasoline and (or) kerosene.

Oil Receipts Fall Off

Receipts of crude and refined oil at Atlantic Coast ports for the week ended July 6 are estimated at 3,388,000 bbls., a daily average of 484,000 bbls., against 4,478,000 bbls., or 640,000 bbls. daily, for the week ended June 29.

The falling off in receipts is attributed to smaller takings from the Gulf Coast. These are estimated at 1,950,000 bbls., a daily average of 279,000 bbls., against 3,129,000 bbls., or 447,000 bbls. daily, for the preceding week.

Receipts from California for the week of July were 567,000 bbls., against 497,000 bbls., while imports amounted to 871,000 bbls., compared with 852,000.

Petroleum Receipts

The following table shows estimated daily average receipts of crude and refined oil by water at Atlantic Coast ports for the last three weeks; also monthly record for the last 12 months (figures in barrels):

	Week Ended		
	July 6	June 29	June 22
Gulf Coast	279,000	447,000	346,000
Pacific Coast	81,000	71,000	157,000
Mexico	52,000	59,000	81,000
South America	72,000	63,000	19,000
Total	484,000	640,000	603,000

Daily Averages by Months					
	Gulf	Pacific	Mex.	S. Am.	Total
1927—					
June	378,000	118,000	68,000	47,000	611,000
May	332,000	58,000	91,000	53,000	534,000
April	388,000	93,000	69,000	61,000	611,000
March	345,000	103,000	36,000	81,000	565,000
Feb.	379,000	89,000	40,000	48,000	556,000
Jan.	362,000	73,000	49,000	61,000	545,000
1926—					
Dec.	363,000	57,000	49,000	61,000	530,000
Nov.	335,000	62,000	56,000	40,000	493,000
Oct.	270,000	71,000	61,000	43,000	445,000
Sept.	299,000	98,000	63,000	58,000	518,000
Aug.	320,000	61,000	71,000	46,000	498,000
July	360,000	66,000	115,000	36,000	577,000

The foregoing figures are based on the carrying capacity of incoming oil-laden tankers.

PERRY A. LITTLE DEAD

CHATHAM, Ontario, July 9—Word has been received here of the death at Venice, Italy, of Perry A. Little of Buffalo, N. Y. Mr. Little left some weeks ago for Europe to attend the International Rotary convention at Brussels, Belgium, as a delegate of the Rotary Club of Buffalo. He was one of the pioneers of the natural gas industry in America, and a prominent figure 20 years ago in the early natural gas development in the Tilbury Field of Ontario.

RECEIPTS OF CALIFORNIA OILS AND JUNE IMPORTS OF PETROLEUM

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports for the month of June totaled 3,611,000 bbls., a daily average of 120,367 bbls, compared with 1,610,000 bbls., a daily average of 51,935 bbls., for the month of May.

Receipts at Atlantic and Gulf Coast ports for the week ended July 2 totaled 747,000 bbls., a daily average of 106,714 bbls., against 959,000 bbls., a daily average of 137,000 bbls., for the week ended June 25.

	Total		Week Ended	
At Atlantic Coast Ports—	June	May	July 2	June 25
Baltimore	767,000	324,000	181,000	97,000
Boston	337,000	237,000	.....	.....
New York	1,465,000	570,000	285,000	521,000
Philadelphia	521,000	286,000	211,000	236,000
Others	521,000	193,000	70,000	105,000
Total	3,611,000	1,610,000	747,000	959,000
Daily average	120,367	51,935	106,714	137,000
At Gulf Coast Ports—None.				
Total Atlantic and Gulf Coast ports	3,611,000	1,610,000	747,000	959,000
Daily average	120,367	51,935	106,714	137,000
Distribution of total California oil receipts is as follows:				
Crude	1,592,000	243,000	491,000	290,000
Gasoline	1,103,000	719,000	80,000	361,000
Gas oil	248,000	310,000	73,000	175,000
Fuel oil	610,000	338,000	45,000	133,000
Lubricating oil	58,000	.....	58,000	.....
Total	3,611,000	1,610,000	747,000	959,000

According to figures collected by the American Petroleum Institute, imports of crude and refined oils at the principal ports for the month of June totaled 5,190,000 bbls., a daily average of 173,000 bbls., compared with 5,890,000 bbls., a daily average of 190,000 bbls., for the month of May.

Imports at the principal United States ports for the week ended July 2 totaled 1,011,000 bbls., a daily average of 144,428 bbls., compared with 1,681,000 bbls., a daily average of 240,143 bbls., for the week ending June 25.

	Total		Week Ended	
At Atlantic Coast Ports—	June	May	July 2	June 25
Baltimore	545,000	652,000	71,000	290,000
Boston	291,000	304,000	.....	117,000
New York	2,516,000	2,897,000	367,000	963,000
Philadelphia	327,000	241,000	57,000	.....
Others	497,000	731,000	72,000	.....
Total	4,176,000	4,825,000	567,000	1,370,000
Daily average	139,200	155,645	81,000	195,714
At Gulf Coast Ports—				
Galveston district	60,000	56,000	.....	20,000
New Orleans and Baton Rouge	954,000	949,000	444,000	291,000
Port Arthur and Sabine district	.....	60,000	.....	.....
Tampa	.....	.....	.....	.....
Total	1,014,000	1,065,000	444,000	311,000
Daily average	33,800	34,355	63,428	44,429
At All United States Ports—				
Total	5,190,000	5,890,000	1,011,000	1,681,000
Daily average	173,000	190,000	144,428	240,143

Refining of Ventura Avenue Crude

Possible Gasoline Yield of 68.6 Per Cent From Combined Topping and Cracking Operation. Treating Methods

By Gustav Egloff and Jacque C. Morrell
Research Laboratories, Universal Oil Products Co.

The Ventura oil selected for this work had the following properties:

Analysis of Ventura Crude Oil

1. A. P. I. Gravity	29.5°
Furol Visc. @ 77° F.	14 sec.
Cold Test	22°F.
Sulphur	1.00%

Products Derived From the Crude Oil

	Pct.
Gasoline	31.0
Kerosene	7.2
Gas Oil	19.8
Lubricating oil	12.3
Paraffin wax	2.7
Pitch Bottoms	25.0
Water	2.0

Gasoline

2. A. P. I. Gravity	54.7°
Initial boiling point	128° F.
End Point	433° F.
Color	30
Doctor Test	Negative
Corrosion	Negative
Sulphur	0.06%
Odor	Good

Kerosene

3. A. P. I. Gravity	38.1°
Initial boiling point	387° F.
End Point	527° F.
Color	Yellow
Flash	165
Doctor Test	Negative
Sulphur	0.35%
Odor	Good

Gas Oil

4. A. P. I. Gravity	30.6°
Initial boiling point	514° F.
End Point	777° F.
Sulphur	0.77%

Lubricating Oil Fraction

5. A. P. I. Gravity	22.7° F.
Viscosity (Saybolt Universal) 100° F.	270 sec.
Flash point	280° F.
Fire point	390° F.
Sulphur	1.22%

Pitch Bottoms

6. Melting point pitch	120° F.

A. S. T. M. Analysis of Gasoline, Kerosene, and Gas Oil Fractions of Ventura Crude

	Straight-run Navy Gasoline		Kerosene		Gas oil	
A. P. I. Gravity	54.7°		38.1°		30.6°	
I. B. P.-E. P. °F.	128-433		387-527		514-777	
Pct. off	Temp. °F.		Temp. °F.		Temp. °F.	
10	187		416		542	
20	214		424		554	
30	233		430		567	
34	...		...		572	
40	251		437		580	
50	270		443		597	
60	293		449		614	
70	317		457		641	
80	340		467		675	
90	379		483		733	
Over	97.5%		98.5%		98%	
Bottoms	1.0%		1.5%		2%	
Loss	1.0%					

Chemical Analyses

Chemical analyses were made upon the gasoline to determine the percentage of the series of hydrocarbons by the method devised by Egloff and Morrell[1].

Hydrocarbons	Per cent
Paraffin	58.9
Unsaturates	4.9
Naphthene	32.2
Aromatic	4.0

Ventura Topped Crude

The Ventura topped crude oil used for the cracking tests was the residue after the gasoline fraction had been recovered by distillation. The Ventura topped crude had the following properties:

Gravity °A. P. I.	20.1°
I. B. P. °F.	435 °F.
E. P. °F	740 °F.
Charge, cc	100 cc
Cold Test	61 °F.
Flash { Cleveland	225 °F.
Fire { Open Cup	260 °F.
Furol Visc. 77°F.	135 sec.
Condenser 60°F.	Water

Per cent over	Temp. °F.
5	476
10	515
15	541
20	575
25	606
30	638
35	666
40	685
45	697
50	704
55	714
60	725
65	729
70	733
75	740
80	732
85	705
90	737
91.5	700

Over	91.5%
Water	Trace
410°-572°F.	19.5%
Coke	7.8%
Sulphur	1.28%

Cracking Results

The cracking of Ventura topped crude was carried out at temperatures ranging between 810 and 860 degrees Fahrenheit, and at 125 pounds pressure. The cracking tests were made to produce cracked distillate, coke and incondensible gas in one mode of operation. Another type of cracking operation was conducted so as to produce cracked distillate, residuum coke and incondensible gas.

The yield of Navy end point gasoline by the cracked distillate, coke, and incondensible gas mode of operation, called nonresiduum type of operation, was 57.2 per cent. The total yield of gasoline derived from Ventura crude oil from blending straightrun and cracked gasoline was 68.6 per cent. When the pressure distillate bottoms are recracked, over 75.0 per cent of Navy end point gasoline will be produced from the topping and cracking of Ventura crude oil.

A test was made on the basis of the residuum type of operation, producing cracked distillate, residuum, coke and incondensible gas. This mode of operation produced a yield of 48 per cent of Navy end point gasoline based upon the topped crude. A total yield of straightrun and cracked gasoline from the Ventura crude in this test was 62.5 per cent of Navy end point gasoline. The distillation analysis of the cracked gasoline derived from the nonresiduum type of operation are tabulated as follows:

A. T. S. M. Distillation of Cracked Gasoline

	Non-Residuum Type Opera.	Residuum Type Opera.
Grav. °A.P.I.	53.5	54.4
I.B.P. °F.	119°F.	126°F.
E.P. °F.	439°F.	438°F.
Charge, c.c.	100 c.c.	100 c.c.
Condenser °F.	Ice & water	Ice & water
Blending ratio	A/B	29.8/32.7

Pct. Over	Temp. °F.	Temp. °F.
5	153	157
10	175	178
15	193	196
20	213	211
25	229	224
30	244	236
35	258	248
40	273	260
45	285	271
50	298	283
55	309	293
60	321	304
65	329	314
70	343	325
75	356	341
80	368	356
85	383	371
90	398	389
95	418	413
98	439	438
Over	98%	98%
Bottoms	1%	1%
Los	1%	1%

Chemical Analysis of Cracked Gasoline

Paraffin	44.5
Unsaturates	20.4
Naphthene	12.1
Aromatic	23.0

Chemical Treatment

The cracked distillates derived from the Ventura topped crude by the two modes of operation contained 0.68 per cent sulphur. This is a relatively high sulphur content for cracked distillate when compared with oils derived from other fields than those in California.

The chemical treatment of the cracked distillates designed to produce water white and light stable gasoline was as follows:

The cracked distillate was washed with 16 degree Baume caustic soda solution to remove the hydrogen sulphide and some of the mercaptans. It was then washed thoroughly with water and mixed with 10 pounds of 66 degree Baume sulphuric acid per barrel. The sludge acid was allowed to settle and was drawn off. The oil was thoroughly washed with water. The cracked distillate was neutralized with approximately 1.5 per cent by volume of 16 degrees Baume sodium plumbite solution and after thorough agitation was allowed to settle. The plumbite sludge was drawn off. The cracked distillate was then thoroughly washed with water and distilled with steam and fire to yield finished gasoline and gas-oil bottoms. The above refining of the cracked distillate produced a water white, light stable, doctor sweet, and noncorrosive gasoline containing 0.27 per cent of sulphur.

The straightrun gasoline from the crude oil required only a sodium plumbite treatment to produce a product of a Saybolt color of 26. It was of negative corrosion test, doctor sweet, of good odor and had a sulphur content of 0.06 per cent.

A blend of the straightrun and cracked gasoline in the proportions in which they were produced by topping and cracking, passing general market specifications, contained 0.18 per cent of sulphur. To bring the cracked gasoline down to the market specifications of 0.1 per cent of sulphur would call for more drastic refining of the cracked gasoline.

The straightrun kerosene from the Ventura crude oil had a sulphur content of 0.35 per cent and is amenable to treatment by the Edeleanu sulphur-dioxide process which is in operation in several refineries in California. The sulphur dioxide treatment of kerosene stock produces a very high grade burning oil. Drastic sulphuric acid treatment will also refine the kerosene to market specifications.

Cracked Distillates

The cracked distillates after the chemical treatment outlined, were analyzed by the Hempel method of distillation so as to determine the percentages of gasoline and gas oil.

	Non-Residuum Type Opera.		Residuum Type Opera.	
Grav. °A.P.I.	49.1°		53.3°	
I.B.P. °F.	81°F.		84°F.	
E.P. °F.	435°F.	85.6%	440°F.	
Charge, c.c.	800 c.c.		800 c.c.	
Condenser °F.	water		water	
Pct. over	Temp. °F.		Temp. °F.	
10	154		150	
20	218		202	
30	253		253	
40	294		285	
50	336		320	
60	369		353	
70	410		389	
77.3	435		...	
77.5	...		410	
85.6	...		440	

Cracked Distillate Bottoms or Gas Oil

Grav. °A.P.I.	26.9°	33.5°
I.B.P. °F.	436°F.	443°F.
E.P. °F.	666°F.	651°F.
Charge, c.c.	100 c.c.	50 c.c.
Condenser °F.	Water	Water
Sulphur	0.7%	.....

Pct. over	Temp. °F.	Temp. °F.
5	448	
10	456	457
15	460	
20	463	464
25	467	
30	472	471
35	476	
40	480	477
45	485	
50	490	484
55	494	
60	500	494
65	505	
70	515	507
75	522	
80	535	527
85	550	
90	578	566
95	610	
98	666	
99		651
Over	98%	99%
Bottoms	2%	1%

The cracked distillate bottoms derived from the cracking of the topped Ventura crude oil may be used for recycling stock, furnace oil, or Diesel engine oil. The distillation analyses for the cracked distillate bottoms for the two types of cracking operations were made by the A. S. T. M. method.

Cracked Residuum Oil

The cracked residuum produced from the pressure distillation of the Ventura topped crude oil passed all market specifications and analyzed as follows:

Grav. °Sp.	0.9672
Grav. °A.P.I.	14.8
I.B.P. °F.	397°F
E.P. °F.	815°F.
Charge	100 c.c.
Flash) Cleveland	190°F.
Fire) Open Cup	225°F.
Furol Visc. 77°F.	21 sec.
Cold Test	Below 0°F.
Benzol, B.s.	None
Condenser °F.	Water

Pct. Over	Temp. °F.
5	449
10	472
15	488
20	503
25	515
30	528
35	544
40	557
45	577
50	596
55	619
60	650
65	680
70	711
75	737
80	773
85	815
89	657

Coke

The coke produced from the cracking reaction is of a honeycomb structure and rather dense. It contains approximately 10 per cent of volatile matter. The B.t.u.s per pound of coke are approximately 15,500. The nonresiduum type of operation produced 60 pounds of coke per barrel, whereas the residuum type, without flashing the residuum, made 33 pounds of coke per barrel. The type of operations that involves flashing the residuum would give a yield of approximately 5 pounds of coke per barrel of topped crude oil.

Incondensible Gas

The incondensible gas produced by the two types of operation averaged 1,300 B.t.u.s per cubic foot and amounted to 542 cubic feet per barrel of oil charged for the nonresiduum type operation and 368 cubic feet per barrel for the residuum method.

Motor Tests

Motor tests were made upon the straightrun and cracked gasolines. The motor used for the tests was a Delco modified single-cylinder, water cooled head type which was fully described by Faragher and Hubner in the Journal of the Society of Automotive Engineers, (Volume 20, page 405, 1927). The straightrun and cracked gasoline showed a value equivalent to 40 per cent benzol when using a Pennsylvania gasoline as a base to which pure benzol had been added.

Corrosion

The Ventura crude oil as received contained 1 per cent of sulphur and 2 per cent of water. The salt water present in the crude contained no calcium or magnesia chloride but sodium chloride was present to the extent of 22.8 pounds per 1,000 bbls. of crude oil. In view of the absence of magnesium chloride, no precautions are necessary in distilling

Ventura Field

The Ventura Avenue Field for several months has been one of the major producing areas of California. Its production has exceeded 50,000 bbls. a day although due to a curtailment in operations its present production is approximately 37,000 bbls.

Potentially it is considered one of the greatest producing fields ever discovered on the west coast with the bulk of the production yet to be brought to the top of the ground. The accompanying article gives a complete discussion of the refining possibilities of the crude including a chemical analysis of the finished gasoline and heating methods.

1. Journ. Ind. Eng. Chem. 18, 354 (1926)

the Ventura crude oil to neutralize hydrogen chloride.

The topped crude oil used for cracking stock contained 1.28 per cent sulphur which under cracking conditions produced hydrogen sulphide and mercaptans. It would be desirable to neutralize the hydrogen sulphide resulting from the decomposition of the sulphur compounds. This may be accomplished by injecting hydrated lime into the cracking system at the rate of approximately 1 pound per barrel of cracking stock treated. The injection of lime into the cracking system not alone has a neutralizing effect upon the hydrogen sulphide, but also simplifies the cleaning of the heating tubes and the removal of coke from the reaction chamber, owing to the formation of a film between the coke and the inside of the heating and reaction elements.

Summary of the Cracking Data

Pressure, lbs.	125 125
Kind of oil—	Topped Ventura Crude Oil
A. P. I. Gr.	20.1° 20.1°
Pressure Distillate:	
Pct. raw oil	74 0 56 0
A. P. I. Gr.	49.1 53.3
Residuum:	
Pct. raw oil	None 33 6
A. P. I. Gr.	14.8
Coke, lbs./bbl.	60 33
Unc. gas. cu. ft./bbl.	542 368
Coke. gas and loss	26.0 10.4
Gasoline (N. E. P.):	
Pct. press. dist.	77 3 85 6
Pct. raw oil	57 2 48 0
I.B.P.-E.P. °F.	119-439 106-436
P. D. cut	435 440
Gas Oil:	
Pct. press. dist.	21.3 11.0
Pct. raw oil	15.8 6.1
A. P. I. Gr.	26.9 33.5
Loss:	
Pct. press. dist.	1.4 3.4
Pct. raw oil	1.0 1.9

Summary of Gasoline Yields (Based on the Crude Oil)

Pct. N.E.P. Gasoline from cracking operation	38.8 32.7
Pct. straightrun Navy gasoline from top. operation	29.8 29.8
Pct. total Navy gasoline from topping and cracking operations	68.6 62.5

PINE ISLAND TRINITY MAY BE PROLIFIC

(Continued from Page 31)

tober 25, 1926, the Fortuna Oil Co. (Magnolia) created another sensation when it brought in a well, No. 17 Dillon (Robertshaw), Section 24, flowing 1,200 bbls. of oil and 900 bbls. of salt water from a depth of 3,644 feet. This well still is flowing 250 bbls. of oil daily along with considerable salt water. Up to the recent Haynes well this was the biggest producer, unless the Gulf Refining Co.'s No. 12 Tyson, Section 14, is considered.

Out of the Usual

The latter well has had an unusual history. It was completed July 18, 1926, making 42,000,000 feet of gas from a depth of 3,819 feet. On January 1, 1927, it started flowing oil at the rate of 25 bbls. daily. This daily production of oil increased until it had reached a total of 400 bbls. daily in March, when it suddenly stopped when The Texas Company's No. 5 Herndon, in the same section, blew out making around 40,000,000 feet of gas daily with a spray of oil and salt water. The Herndon well caught fire and burned for a week before being extinguished, and several days later when it was placed under control, the Gulf's No. 12 Tyson again started making oil and production has increased daily until now the well is making around 1,000 bbls. of oil daily.

A similar experience was met when the Fortuna Oil Co.'s No. 17 came in as the biggest well to that date. This was followed by the Dixie Oil Co.'s No. 1-A Noel, Section 13, a small gas and oil producer, going dead.

Now the most sensational development in the deep sand production has been the Haynes Brothers' No. 1 Murray, Section 14-21-15, which was completed a week ago Sunday flowing at the rate of better than 12,000 bbls. daily from a depth of 3,685 feet.

Of the 19 deep wells in the lower Glen Rose 7 have made oil or started to flow oil since being completed, although all these are not flowing now. A number of the gas wells also have turned to salt water. A record of the Trinity horizon wells in the Pine Island Field is given in an accompanying list.

There are several indications that if the true Trinity sand is found in the Pine Island Field it will be prolific, according to geologists. In the first place the gas from the Glen Rose is of extremely high gasoline content. In the second place, in the Carboniferous rocks north of the outcrop in Arkansas and Oklahoma as well as in the Trinity itself have been found asphalt deposits.

These Carboniferous rock layers are steeply tilted and are believed by some geologists to underly the Trinity in northwest Louisiana, their edges projecting into the Trinity. The asphalt in these Carboniferous layers is believed to be the residuum of petroleum, whose lighter and more volatile constituents have escaped by evaporation.

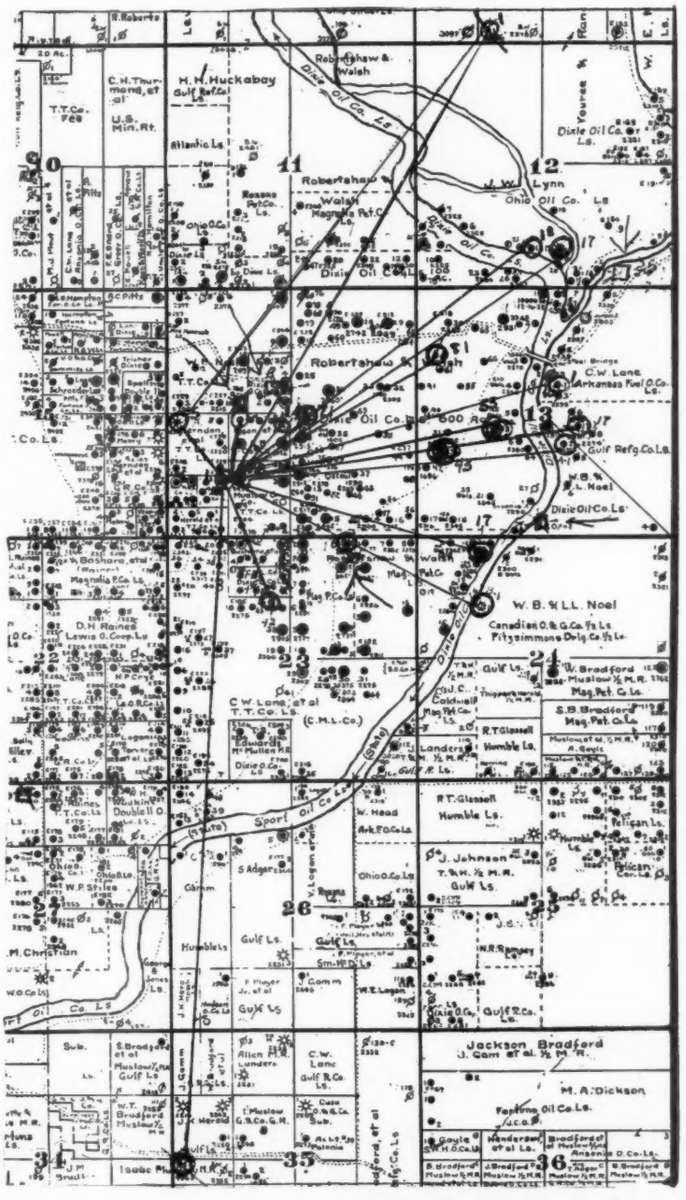
Mr. Easton's Theory

If the theory of Mr. Easton is correct, these oil deposits in the Carboniferous rocks of northwest Louisiana, not being in a position to evaporate, in the course of time have worked their way upward into the Trinity, which is supposed to have contact through the projecting edges of the Carboniferous layers. This oil probably would not go higher than the lower limestone. Due to the general slope of the Trinity this oil probably would migrate upward, or northward, until trapped in some structure such as is believed to exist in the Pine Island Field. To account for the rich gas in the Glen Rose it is to be expected that some of the lighter constituents of the oil in the Trinity should pass upward into that formation.

Geological observations of the Trinity at the Arkansas outcrop and in wells in southern Arkansas have shown plenty of sand bodies and capping materials to make an oil field but these lack only closed structures to make a field.

That all these conditions may be learned in the not far distant future seems possible in view of the stimulus given deeper drilling and the renewed interest taken in the Trinity sand possibilities. The Ohio Oil Co., for one, has had an appropriation, it is reported, for a 6,000-foot well on its Smith lease in Section 12, the well being No. 25. It is understood the well will be drilled to this depth if production is not encountered sooner. Other companies already are making preparations to deepen several old wells and as this is written locations are being made in the immediate vicinity of the Haynes well for 10 new deep wells.

Further east and across a syncline from the main Pine Island district there is considerable interest attached to the fact that tests drilling there are checking approximately the same as deep wells west of the saddle.



—Map courtesy Globe Map Co., Shreveport.

Part of the Pine Island area of Caddo Parish.

Pine Island Deep Wells

In order of their completion:

Dixie Oil Co.'s No. 43 Dillon, Section 13-21-15, completed November 2, 1924; gas; 3,623 feet; dead.

Dixie Oil Co.'s No. 1-B Noel, Section 24-21-15, completed May 10, 1925; gas; 3,650 feet; salt water.

Magnolia Petroleum Co.'s No. 10 Dillon, Section 23-21-15, completed May 12, 1925; gas; 3,604 feet; dead.

Ohio Oil Co.'s No. 17 Smith, Section 12-21-15, completed September 18, 1925; gas; 3,697 feet; dead.

Dixie Oil Co.'s No. 53 Dillon, Section 13-21-15, completed December 11, 1925; oil (250 bbls.); 3,790 feet; 60 bbls.

Dixie Oil Co.'s No. 1-A Noel, Section 13-21-15, completed March 15, 1926; oil and gas (25 bbls.) 3,632 feet; dead.

Arkansas Natural Gas Co.'s No. 1 Lane, Section 13-21-15, completed May 6, 1926; gas; 3,613 feet; gas.

Gulf Refining Co.'s No. 17 Lane, Section 13-21-15, Section 5-6-26, completed May 6, 1926; oil, gas, salt water (15 bbls. oil); 3,782 feet; salt water.

Ohio Oil Co.'s No. 18 Smith, Section 12-21-15, completed June 6, 1926; gas; 3,688 feet; salt water.

Dixie Oil Co.'s No. 71 Dillon, Section 14-21-15, completed June 28, 1926; gas; 3,633 feet; gas.

Gulf Refining Co.'s No. 12 Tyson, Section 14-21-15, completed July 18, 1926; gas; 3,819 feet; gas and oil.

Magnolia Petroleum Co.'s No. 17 Dillon, Section 24-21-15, completed October 25, 1926; oil and salt water (1,200 bbls.); 3,644 feet; oil and salt water.

The Texas Company's No. 42 C. M. L., Section 23-21-15, completed December 1, 1926; oil (60 bbls.); 3,918 feet; oil.

Dixie Oil Co.'s No. 81 Dillon, Section 13-21-15, completed May 12, 1927; gas; 3,647 feet; gas.

The Texas Company's No. 5 Herndon, Section 14-21-15, completed March 29, 1927; gas; 3,590 feet; gas (to deepen.)

Gulf Refining Co.'s No. 13 Tyson, Section 14-21-15, completed June 25, 1927; gas; 3,730 feet; gas (to deepen.)

Haynes Brothers' No. 1 Murray, Section 14-21-15, completed July 3, 1927; oil; 3,685 feet; oil.

Dry Holes

Ohio Oil Co.'s No. 1 Ardis & Lay, Section 1-21-15, completed August 4, 1926; dry; 4,556 feet.

Gulf Refining Co.'s No. 1-E Muslow, Section 35-21-15, completed September 6, 1926; dry; 4,963 feet.

Dixie Oil Co.'s No. 1 Jolly, Section 27-22-15, completed January 9, 1927; dry; 4,482 feet.

GASOLINE STEADY IN LOUISIANA AND ARKANSAS

SHREVEPORT, La., July 11.—The past week in Arkansas and North Louisiana refinery markets witnessed a steady strengthening of gasolines. Other products reflected very little change either for better or worse and have not for the past month. A good movement of gasolines, principally to South Louisiana and Mississippi, and a good run of inquiries for new business over the remainder of the month have given the situation here a more favorable outlook.

Comparatively little "underselling" to get business is heard now and Monday virtually no sales were made below 7¼ cents. So far as known one large Shreveport refining company will advance its quotation to 7½ cents Tuesday. Other sellers express the opinion that they were not yet on a sufficiently steady basis to justify a general advance. Inquiries for material to be shipped over the remainder of July were active Monday with buyers freely offering 7¼ cents, but on the favorable outlook for the months sellers were not inclined to take less than 7½ cents. A check of refineries indicates that a present spot demand and daily production are about equal. Other products continued featureless.

JUDGE BELL JOINS MUTUAL

Judge H. E. Bell, who recently resigned as chief supervisor of the oil and gas division of the State Railroad Commission of Texas, has become associated with the Mutual Oil Co., with headquarters at Abilene. Judge Bell is to be in charge of the land department.

REFINING AND MARKETING

Standard Officials Use Large Airplane On Inspection Trip

CHICAGO, July 9.—Officials of the Standard Oil Co. of Indiana returned from a trip in their airplane "Stanolind" more enthusiastic regarding the possibilities of aviation than ever before. The trip extended to Rapid City, S. Dak., and reached a total mileage of slightly over 2,200 miles made in 23 hours of actual flying time at an average rate of 85 miles an hour with a top speed of 115 miles per hour.

The management had many requests to stop at various points on the route. None of these had landing fields so that to stop was impossible but the plane was flown at a low altitude and as slowly as possible to enable the residents of these points to see it plainly.

The party was made up of R. W. Stewart, chairman of the board; Allan Jackson, vice president in charge of sales; L. L. Stephens, general attorney; Frank V. Martinek, department of personnel; R. E. Humphreys, assistant general manager manufacturing; C. F. Hatmaker, assistant general manager of sales in charge of northern division; Roy J. Barnett, tax commissioner; and Maj. J. P. Porter, chief pilot; Perry G. Hutton, pilot and James Phelps, mechanician.

The start was made early on the morning of July 4, to inspect the properties of the company at various points. Woodruff, Wis., was the first point. St. Paul and Minneapolis followed. A stop was made at Huron, S. Dak., and the trip for that day ended at Rapid City, S. Dak. The next day the party attended the tristate roundup at Bellefourche. The return trip was begun at 7 a. m., July 6, and Chicago was reached at 5:10 p. m. that afternoon with stops at Sioux City, for refueling and at Moline, Ill.

TO INCREASE PORTO RICO GASOLINE TAX

WASHINGTON, D. C., July 9.—The act providing for an excise tax of 2 cents per gallon on gasoline in Porto Rico, effective from July 1, 1925, has been amended recently to increase the tax to 4 cents per gallon, according to a report to the Department of Commerce from Assistant Trade Commissioner J. R. McKey, San Juan, Porto Rico.

A further amendment which awaits the approval of the governor, proposed a tax of 2 cents per gallon on lubricating oils and greases, the new tax to be computed at 8 pounds to the gallon, making the tax one-fourth cent per pound. Petroleum products other than gasoline and lubricating oils and greases, being exempted from excise tax, will be subject to the 2 per cent ad valorem sales tax.

EXTEND DISTRIBUTING SYSTEM

CHATHAM, Ontario, July 9.—The Supertest Petroleum Corp., Ltd., of Toronto, which operates a number of storage stations and over 100 service stations in Ontario and Quebec, recently made an issue of $278,900 7 per cent preferred shares to finance the opening of new wholesale and retail units and the consolidation of the purchase of the assets of the Ensign Oil Co. of Montreal, taken over in October, 1926.

NEW CHICAGO MANAGER

CHICAGO, July 9.—T. W. Larkin is now in charge of the Chicago office of the Crown Central Petroleum Corp. The offices are located at 624 South Michigan Avenue.

COMPROMISE ENDS SERIOUS LABOR SITUATION IN CHICAGO TERRITORY

By J. B. Waldo

CHICAGO, Ill., July 11.—The lock-out of station attendants and tank wagon drivers which became effective in this city Friday morning was ended today when representatives of the oil companies and the unions were able to get together in a compromise agreement covering salaries of employes.

The lock-out which attracted nation wide attention was the first of its kind in the history of the oil industry. It served to emphasize the fact that gasoline is now one of the common necessities of life and its distribution cannot be stopped without serious results to the industrial life of a large city.

—P. & A. Photo

Automobile owners line up to secure gasoline and lubricating oils at an outlying station during lockout in Chicago July 8 and 9.

Not only would a total lack of motor fuel bring to a halt the transportation of a vast quantity of freight including much live stock but the residential districts are at present very largely dependent on trucks for the receipt of the daily supplies of bread, meats, green vegetables, ice, milk and the like. Gradually a system of distribution has been developed between the sources of supply such as the huge bakeries, the packing houses, the ice plants and the milk depots whereby supplies are forwarded for many miles to the residential districts and suburbs for distribution to the households through either the local stores or smaller delivery vehicles.

No longer does the local grocer arise at an early hour to hustle down to the center of the city for his supplies of fruits and vegetables. He simply waits for the large trucks of the distributors of these farm products to arrive at his store where he makes his purchase of the days supplies at his leisure. The chain stores, which do such a large part of the business formerly had by the local grocer and butcher, stock their stores each day by trucks that look as large as freight cars. Any continued stoppage to the supply of gasoline would entail great inconvenience if not actual hardship to the residential districts of the city. The stock yards now receives such a large proportion of its shipments of live stock by motor that a part of the Chicago stock yards has been set aside for the receipt of such deliveries which are said to reach the yards in better condition than those that come by railroad.

Cause of Trouble.

The story of the present trouble between the owners and the employes of the local distributing system of stations and tank wagons dates back to last year when the unions formulated demands for a raise in wages which they did not press at that time. A little more than one month ago the union leaders headed by representatives of the International Brotherhood of Teamsters with which the organization of the station attendants and truck drivers is affiliated presented demands for a raise in pay for the drivers from $175 to $190 per month with a weeks' vacation on pay. The drivers at

(Continued on Page 142)

AMERICAN OIL MEN MEET IN NOVEMBER

The fall meeting of the American Oil Men's Association will be held at West Baden, Ind., November 2, 3 and 4. The selection of West Baden was the result of a poll of the association membership, that city being selected in preference to Detroit and Louisville.

The early November dates were chosen so as not to interfere with the International Petroleum Exposition in Tulsa, Okla., the Big Four State Meeting in Kansas City, Mo., and the American Petroleum Institute meeting in Chicago. All meeting and exhibits will be held at the West Baden Springs Hotel.

The National Oil Equipment and Exhibitors Association an affiliated organization of the American Oil Men's Association has announced that manufacturers and sellers of jobbing equipment and supplies will be given the opportunity to exhibit at the West Baden meeting. It had previously been announced that exhibits would be confined to the spring meeting.

Since that time, the Independent Oil Men of America has announced that it will not have exhibits at either its fall or spring meetings. Due to this fact it was decided to permit the exhibits at the West Baden meeting this fall. An election of officers for the equipment association will be held during the convention.

ADVANCE NORTH TEXAS RAIL RATES TO CANADA

North Texas refiners will be at a disadvantage in retaining their Canadian gallonage estimated at more than 1,000 cars of light oils annually as a result of the withdrawal of the Canadian lines from the North Texas tariffs. Prior to July 2, these refiners were able to ship to Canadian points from 3 to 6 cents below the Oklahoma (Group 3) rates because of including the Canadian points in the Buffalo, N. Y., and Boston, Mass., territory. The rates to this territory from North Texas had been the result of a combination of rates over Vicksburg or Natches, the Buffalo rate amounting to 62 cents and the Boston rate 74 cents. On a comparable basis the Group 3 rate to Buffalo was 67 cents and to Boston 80 cents.

The new rates in general give Group 3 an advantage of 2½ cents over North Texas. As an example, the Group 3 rate to Chatham, Ontario, is 65 cents, from North Texas 67½ cents, to Hamilton and St. Catherines 67½ cents Group 3 and from North Texas 70 cents. Ottawa is made an exception to this differential as the rate from Group 3 is 80 cents and the new rate from North Texas is 92½ cents, or 12½ cents higher. Before the change, the North Texas rate was 74 cents or 6 cents under the Group 3.

The United States Interstate Commerce Commission is not able to force a revision of these new rates as they have no jurisdiction over the Canadian lines.

NAVY FUEL OIL BID BY PAN AMERICAN

LOS ANGELES, Calif., July 9.—The Pan American Petroleum was the successful bidder for the contract of supplying the United States Navy with fuel oil at Los Angeles harbor during the fiscal year 1927-28. The Pan American agreed to deliver a total of 4,000,000 bbls. at 64½ cents at its marine docks or 66½ cents by bunker delivery inside the harbor. A tolerance clause in the contract gives the navy an option of taking an additional 25 per cent if desired at the same figure. In other words, the Pan American contracted to deliver a total of 5,000,000 bbls. of fuel oil if the Navy Department exercises its option.

The Pan American price is one of the lowest on record, being considerably lower than the previous contracts held by the General Petroleum and Richfield at 75 cents and 71 cents respectively. The Pan American had this navy business just previous to the General Petroleum and Richfield contracts, the award at that time being secured by Pan American at 84½ cents a barrel. The fuel oil contract just awarded to the Pan American is particularly interesting in view of the fact that the navy contemplates the transportation of approximately 2,700,000 bbls. of California fuel oil to the naval base at Pearl Harbor, Hawaii.

The tank farm at Pearl Harbor was constructed by the Pan American and was to have been filled by the company under the original contract by which Doheny secured production rights to the Elk Hills Naval Oil Reserves. The Pan American fleet had transported approximately 1,500,000 bbls. of fuel oil to Pearl Harbor previous to the Supreme Court decision cancelling the Elk Hills Naval Reserve contract. The additional 2,700,000 bbls. of fuel oil to be transported to Pearl Harbor during the coming year will bring the navy's total storage of fuel oil at this point to 4,200,000 bbls. When completed this will be the largest concentration of naval fuel oil supply in history.

JENKINS CRACKING PROCESS

PRODUCES QUALITY GASOLINE

Facts from performance

Even with nation-wide gasoline surplus and prices at or below ordinary costs, Jenkins Licensees readily dispose of their output advantageously.

The high quality product and operating economy have made this possible.

GRAVER *Founded 1857* *Corporation*

EAST CHICAGO, INDIANA

NEW YORK Grand Cent. Term. | CHICAGO America Fore Bldg. | TULSA Atlas Life Bldg. | HOUSTON West Building

Brief Items for Plant Operators

Natural Gasoline Research Program Will Be Continued

At a meeting of the board of directors of the Association of Natural Gasoline Manufacturers held last week at the Tulsa, Okla., headquarters, it was decided to continue the association's research program which was inaugurated last year. The association will raise $21,000 among manufacturers for the year starting July 1, 1927. Dr. G. G. Brown, professor of chemical engineering at the University of Michigan, will continue to have charge of the research program. As in the past, part of the work will be conducted by fellowships at the University of Michigan.

The development of a satisfactory vapor pressure and a continuance of the investigation relative to the tendency of motor fuels to cause carburetor trouble under ordinary operating conditions will feature the research work for the coming year. Both these matters are of vital importance to the manufacturers of natural gasoline and it is believed that conclusions of great practical value can be worked out during the coming year.

Members of the association believe that the work accomplished by the research department during the past year has already been beneficial to the natural gasoline industry as a whole. That natural gasoline has antiknock value with superior qualities, reflected in ease of starting and acceleration when used as blending material to secure a finished motor fuel, has already been established by the research work. In connection with the performance of natural gasoline in carburetors, Doctor Brown, in his report to the May annual meeting of the association stated that the tendency to gasify was less marked in natural gasoline than it was in some other motor fuels. This was an interesting development as one of the main objections made to the use of natural gasoline in large quantities as blending material in the past has been the contention that it resulted in carburetor trouble due to its tendency to gasify. The research department will devote considerable time during the coming year to getting additional data on this phase of motor fuel performance.

TIDAL CO. TO START TUBE AND TANK UNITS

The Tidal Refining Co. this week will start operating its first unit of the Tube and Tank cracking process. Two units of the process, which is owned and licensed by the Standard Oil Co. of New Jersey, have been under construction for several months at the Drumright, Okla., refinery of the Tidal company. The units could have been placed in operation earlier but due to market conditions construction work has not been rushed.

Each of the two units have a rated capacity of 1,500 bbls. daily when charging with gas oil. They are the first cracking units of the Tube and Tank type to be built in Oklahoma. The only units in operation in the Mid-Continent Field are located at the Shreveport, La., refinery of the Louisiana Oil Corp.

The Tidal company previously has operated a battery of Burton cracking stills at its Drumright refinery. These units have been shut down since February 1.

USE JENKINS PROCESS

In an article appearing in the June 30 issue of The Oil and Gas Journal a mistake was made as to the type of cracking units used by the Ogura Oil Co. in Japan. The Jenkins process is used by the company.

AIRPLANES USE STRAIGHT NATURAL GASOLINE IN NATIONAL AIR TOUR

As the 14 contesting planes in the National Air Tour sponsored by Edsel Ford left Tulsa on their way to Wichita, Kans., and Omaha, Neb., July 17, each was burning a new fuel called "Naturaline" developed by the Chestnut & Smith Corp. of Tulsa, Okla. The purpose of the tour was to demonstrate the dependability of airplane performance for commercial use, and the fleet included practically every type of plane. To have supplied these ships under these conditions speaks well for the new fuel. Included in the fleet were two tri-motor all-metal Ford planes carrying 12 passengers each, a Ryan monoplane duplicating the construction of Colonel Lindbergh's plane and several elaborately upholstered passenger planes.

During the eight months of experimental work by the Chestnut & Smith Corp., the laboratory has been made secondary to actual trial flights, and in all over 50 planes have been fueled in these tests. As natural gasoline had not been used as an airplane fuel because of its tendency to gasify at the higher altitudes and stop the oil feed, the first efforts in its use was in blending it with a suitable refinery gasoline. The new fuel, however, is not a blend but a super-stabilized product of natural gasoline. No specifications have been set up in terms of the specifications used on ordinary gasoline, as it was found that the regular tests were not adequate to determine whether a gasoline of that nature was suitable as a motor fuel.

The chief objective in the development of the fuel was to eliminate the gas-lock formed when using ordinary natural gasoline. When rising from sea level to 10,000 feet, even some of the more volatile refinery gasolines ceased flowing. A study was made of the cause and it was found that by eliminating those hydrocarbons within a very definite boiling paint range that the starting qualities of the motor would not be impaired and the gas lock would be eliminated. Exhaustive tests confirmed this prior to offering it to the National Air Tour fliers.

Additional tests are to be made in order to obtain its approval by the American Society for Testing Material and the Government, and within 90 days the company expects to offer it as a regular

(Continued on Page 144)

NEW COMPRESSORS ADDED

AMARILLO, Tex., July 9.—Two new compressors are being added to the Dixon Creek Oil Co.'s natural gasoline plant in Hutchinson County. At present the plant is an eight-unit plant, turning out approximately 14,000 gallons of natural gasoline daily. The additional units are expected to increase the output 6,000 gallons daily. The foundations for the units have been built and material is on the ground ready for installation. The company is reported to be considering the erection of a plant in the McIlroy Pool, southeastern Hutchinson County, when conditions of the industry strengthen. The present plant is near Borger, and the additional units are expected to be in operation by the middle of the month.

GASOLINE PLANT

SHREVEPORT, La., July 11.—Louisiana Oil Refining Corp. is making arrangements to build a gasoline absorption plant in the Cotton Valley Field and has contracted with the Arkansas Natural Gas Co. to take the residue gas.

AMONG THE TECHNICAL MEN

Among the operators of North Louisiana is Ronald L. James, chief engineer of the National Gas Products Corp. of Los Angeles, Calif. Although the company is a California firm, it maintains offices at Shreveport, La., and Mr. James spends most of his time there and in that district, where, near Gilliam, the company has just completed its first natural gasoline plant in Louisiana.

Ronald L. James

Mr. James is a technical man of wide experience both in refinery and natural gasoline plant construction, as well as in general engineering. A graduate of Drexel Institute of Philadelphia, Pa., with a mechanical engineering degree, he started out in general engineering, including shipbuilding work during the war.

His first connection with refinery and natural gasoline plant work came soon after the war when he accepted a position as assistant chief engineer with the Continental Mexican Petroleum Co., a subsidiary of the General Petroleum Co. of Los Angeles, and went to Tampico, Mexico, where he helped oversee the construction of a 10,000-bbl. refinery for that company.

Returning to the United States, he became associated with the Pacific Gasoline Corp. of Los Angeles as chief engineer, designing and building a number of gasoline plants in California for that company. During this time he also served in the same capacity for the Golden West Petroleum Corp. of Whittier, Calif., in the building of its 7,000-bbl. refinery.

Mr. James held these positions until slightly over a year ago, when the National Gas Products Corp. was organized, and he accepted the place as chief engineer of the latter company. In this capacity he has charge of all natural gasoline plant operations and field work of the company.

A. S. T. M. Methods In Petroleum Tests Near Publication

The first publication of the American Society for Testing Materials, containing all the standard and tentative standard methods for testing petroleum products will shortly be ready for distribution, according to Dr. R. P. Anderson, of the American Petroleum Institute. Doctor Anderson is secretary of Committee D-2 (petroleum committee) of the American Society for Testing Materials. The publication is based on the work of this committee and will contain its 1927 report.

Refiners and others interested in testing methods for petroleum products believe the decision to publish the work of Committee D-2 to be an important step looking to standardization. At present the only standard and generally accepted publications on specifications and tests are the bulletins of the Government. These do not cover the entire range of testing methods for the reason that the Government is not a buyer of all petroleum products. Committee D-2 has done considerable work for all products for which there is a commercial demand.

The following statement has been issued by Doctor Anderson relative to the publication: "Those of you who attended the meeting at French Lick will recall that plans are being made this year to reprint all standard and tentative stand-

(Continued on Page 142)

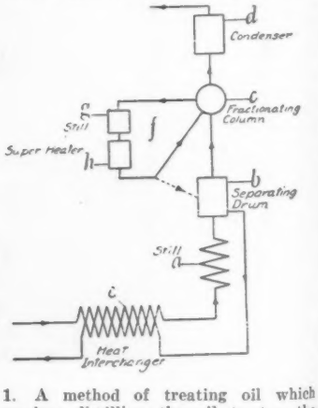
REFINERY AT CALGARY

CHATHAM, Ontario, July 9.—It is announced that the Regal Oil Refinery, Ltd., capitalized at $100,000 and financed by Montana and Calgary capital, will erect a new refining plant in the Manchester industrial subdivision of Calgary. The plant will have an initial capacity of 500 bbls. a day of crude, to be later increased to 750 bbls. It is stated that some new processes will be utilized, including the topping of Montana crudes and the blending of the product with the Turner Valley crude naphthas.

Recent Patents

(Additional Patents on Page 160)

1,632,011. Production of Petrol. Frank Tinker, Sutton Coldfield, England. Field September 25, 1922, Serial No. 590,480, and in Great Britain January 7, 1922. 3 Claims. (Cl. 196—49.)



1. A method of treating oil which comprises distilling the oil to top the same, fractionating the vapors formed to form a condensate while out of contact with raw oil and treating the condensate thus formed to crack the same and thus to form a cracked vapor, introducing said cracked vapor directly into the first-mentioned vapors.

Oils Show Effect of Crude Production

Generally Sluggish During Past Week With Only a Few Securities Showing Resistance to Heavy Trading

The oils as a group during the past week were sluggish, and answered the reports of increased output in the Seminole area of Oklahoma by resting upon their "lows" for this year.

There were few evidences of strength, notably the bonds of the Transcontinental Oil Co., which advanced from 107 to 114, and the Indiana Pipe Line stock which showed good resistance.

Independent Oil & Gas Co. responded to newly acquired production in the Earlsboro district of Seminole by advancing slightly, but aside from these, the rest of the list was extremely inactive.

The oils have receded considerably all during the spring, and in the early part of June registered an advance which was thought to be based upon the prospects of improved earnings for the last two quarters of the current year. Subsequent events have practically eliminated any possibility of good earnings in the latter half of the year, and once more the oils have answered by slumping.

With brokers loans advancing to a record level, and call money reported at 3½ per cent in outside sources, there is ample reason to account for the extremely heavy trading which the general market is experiencing, and the present market has been characterized as a trading market distinctively and the technical position of the oils has reacted to prevent any substantial advances.

Houston Oil made a new high during this week and touched 173¼, this was reported as being due to the difficult position of the short interest. Simms Petroleum registered a new low, selling at 14⅞.

Considerable Selling

Selling of oil securities does not seem to have spent itself. During the past week several issues dropped to lower levels. Standard Oil of New York was heavily sold around 30. Sporadic selling appeared in other issues.

Some authorities believe that heaviness in oils is partly due to the large number of new bond offerings in this group. This situation has been further complicated by offerings in other industrials, which has resulted in a glutting of the bond market, and weakness in bond issues, which has been followed by sympathetic selling of stock.

The New York Journal of Commerce states that the syndicate which offered Marland Oil bonds for sale, has dissolved. This syndicate was headed by J. P. Morgan & Co.

Transcontinental Oil

Transcontinental Oil securities have been much benefited marketwise by the discovery and development of oil jointly with Mid-Kansas Oil & Gas Co., on its Pecos County, Texas, tract.

The 7 per cent bonds have advanced from 97¼ to over 114; the preferred stock from around 60 to 86, and the common from 3¾ to 9¾. The dividends on the preferred stock are cumulative at the rate of 8 per cent per annum, while the bonds carry stock purchase warrants at $10 a share; these bonds have been actively dealt in along with the activity and rise in the common shares.

The Standard Oil Co. of California is understood to be a large holder of the preferred stock of the company, and also in the Mid-Colombia Oil & Development Co., in which Transcontinental has an interest.

Due to the remarkable record of the Pecos County oil field, and its naturally beneficial effect on Transcontinental's earnings, the future development of the company will be watched with interest.

Barnsdall Corp.

The Barnsdall Corp. expects to show net profits after reserves of about 75 cents a share on the 1,153,656 shares of A and B stock in the second quarter of 1927, according to the Wall Street Journal.

Mexican Eagle Oil

The net profit of the Mexican Eagle Oil Co., Ltd., for the year ended December 31, 1926, was $3,647,825 (Mexican) after expenses, depreciation and reserves, against $3,829,335 (Mexican) in 1925.

Reiter-Foster Oil

Following the recent increase of its share capital, through the offering of 150,000 shares at $5 a share, the Reiter-Foster Oil Corp. has acquired 50,000 acres of leases, giving it a total of 88,300 acres on which there is production and several wells drilling. Among the new leases is 640 acres on the Hiawatha Dome on the Colorado-Wyoming boundary, where a large gas well was completed recently, and Reiter-Foster is starting a well half a mile away. On the Timpas Dome, southeastern Colorado, the company has acquired 3,000 acres; on Canon Creek, Colo., 2,560 acres, while on Red Rock Dome, a 27,000-acre block has been leased. Other new leases are in Kansas, New Mexico and Texas.

Tankers, Ltd.

At a meeting of Tankers, Ltd., despite the opposition of a section of the preference shareholders, stockholders approved a resolution altering the articles of association, clearing the way for capital reorganization. Sir H. S. Barnes, chairman, stated the company should receive 120,000 pounds from the liquidation of Southern Oil & Transport Corp., Tankers, Ltd., obtained 80 per cent interest in the ordinary shares of Southern in 1921 by acquisition of the assets of the Scottish-American Oil & Transport Co., Ltd.

Tide Water Associated

The Tide Water Associated Oil Co. has declared a dividend of 15 cents a share on its common stock, payable August 1 to stockholders of record July 12. Previously the common stock had been paying dividends at the rate of 30 cents a share quarterly. Commenting on the action of reducing the dividend, Axtell J. Byles, president, stated that the directors deemed it prudent to curtail the company's dividend disbursements under present conditions.

The dividend of three shillings on the ordinary shares of the Shell Transport & Trading Co., declared in May last, is equivalent to $1.45 an American share. The dividend will be distributed by the Equitable Trust Co. of New York on July 22 to registered holders of American shares of record July 14.

Houston Oil

The Houston Oil Co. has declared the regular semiannual dividend of $3 on the preferred stock.

H. F. Wilcox Oil & Gas Co. on Monday declared the regular dividend of 50 cents per share payable August 1 to stockholders of record July 15.

Skelly Oil Co. declared the regular dividend of 50 cents per share payable August 15 to stockholders of record July 31.

Buckeye Pipe Income

About one-half of Buckeye's pipe line income is from its gathering business. In 1926, this source netted $2,171,640 and trunk lines revenue was $2,120,316. The gathering business is much smaller than company's trunk line volume, but rates on the gathering end of the business are relatively higher.

The increased business so far this year indicates that earnings may exceed the $5.23 a share earned on the 200,000 outstanding $50 par capital stock in 1926. Current dividend rate is $4 a share yearly, with occasional extras. Two extras of 50 cents each were paid last year.

NEW YORK STOCK EXCHANGE—LIST OF ACTIVE STOCKS

Stocks—	Par	Clos. Quot. July 11	Clos. Quot. July 2	1927 High	1927 Low	1926 High	1926 Low	1925 High	1925 Low
Amerada Corp.	..	30¼	30¼	37⅝	27⅝	32⅜	24¾	..	..
Atlantic Refining, com.	100	115¼	111¼	125⅝	107	128⅜	97	117½	95½
Barnsdall "A"	25	25⅝	26	35½	23¼	32½	23½	33⅛	18¾
California Petroleum, com.	25	23⅜	22⅞	32⅝	21½	38⅛	30⅝	34⅝	23⅝
Houston Oil	100	169½	157⅝	173¼	60¼	75	50¼	85	59
Independent Oil & Gas	..	19¼	18¼	32⅜	17⅝	34	20¼	41⅜	13½
Louisiana Oil	10	11⅝	11⅜	18⅛	11½	19⅝	12	23⅜	13⅜
Maracaibo	..	13	*13½	22⅜	15	27⅜	18⅜	35½	20⅜
Marland	..	32	32¼	58⅛	31	63⅝	49⅛	60⅛	32⅝
Mid-Continent Petroleum	..	29⅞	30	39⅜	29	41	25⅜	38	25⅜
National Supply	50	82½	82¾	95⅜	76	84⅞	55½	71	54⅜
Oil Well Supply	25	38⅜	38	44⅜	31¼	36	26	38	33⅜
Pan American, B	50	54½	54	66⅜	54	72⅜	56⅛	83⅞	59½
Pan American, Western B	..	20¼	*20⅜	37⅞	19	46	34	94⅜	37¼
Phillips Petroleum	..	38½	39⅜	60¼	38½	54⅞	42½	47½	36¼
Producers & Refiners	50	24	25	33⅞	16⅜	26	11	32⅝	12½
Pure Oil, com.	..	26	26	33½	26	31	25⅜	33⅜	25½
Royal Dutch, N. Y., sh.	13.40	47⅞	*49	54½	48½	57⅜	49⅜	57⅜	48¼
Shell Transport	10	45⅞	44½	49	43⅝	48⅞	42	49	39⅜
Shell Union, com.	..	27	26⅝	31¾	25⅝	30⅞	24	28⅜	21⅝
Simms Petroleum	10	15¼	15½	22¾	14⅞	28⅝	16½	28½	18⅜
Sinclair Consolidated	..	16¼	16¼	22⅜	16⅜	24⅞	16⅜	24⅞	17
Skelly Oil	25	26	26	37⅜	24¼	37½	27	32½	21¾
Standard of California	25	53⅞	52⅞	60⅜	50⅝	63½	54	67¼	52½
Standard of New Jersey, com.	25	36⅝	36⅜	41⅞	35⅛	46⅜	37½	47½	38⅝
Standard of New York	25	30⅝	30⅛	34½	29⅞	47¼	30⅝	48⅝	40
Sun Oil Co.	..	33	32	34⅜	30	41⅝	30⅛	43⅞	38½
The Texas Company	25	47¼	46⅜	58	45	58	48	55	43⅜
Texas Pacific Coal & Oil	10	14⅜	15	18⅞	12	19½	12½	23⅜	11
Tide Water Associated Oil	..	16¼	16½	23½	15½	21	17	..	..
Transcontinental	..	8⅛	9	8¾	3⅜	5½	3	5⅝	3½
Union Oil of California	25	42	42	56½	39⅝	53⅜	37½	43⅝	33½
Union Tank, com.	100	113	*112¼	115	95	120⅜	84½	‡134	118
White Eagle Oil & Refining	..	23	22⅝	27½	22	29¾	25⅛	21⅜	25⅝
Standard Oils									
Anglo-American Oil	£1	18½	18½	21⅝	18¾	19¾	16½	26¾	17½
Borne Scrymser	25	*59½	*56	69	49½	75	65	‡240	205
Buckeye Pipe Line	50	*55¼	*55	58	45	59½	42	72	63½
Chesebrough Manufacturing Co.	25	103½	103	107	76½	81⅛	63	74	98¼
Continental	10	17⅛	17	22⅝	17⅛	25⅞	19¼	31⅛	21⅞
Cumberland Pipe Line	100	90¼	*89	‡137	106	137	102	156	128
Eureka Pipe Line	100	54½	*54	56¼	47	53¾	43	96	61¼
Galena Signal, com.	100	8	*7½	13½	7½	32½	9⅞	68½	23½
Humble Oil & Refining Co.	25	58⅜	57	62⅜	54	99⅜	52	99	42½
Illinois Pipe Line	100	147½	147	150	123⅜	144	131	154½	124
Imperial Oil	..	43¼	42½	47	37¾	39¾	32½	39¼	27¼
Indiana Pipe Line	50	70	70½	72½	61	68	52½	84	87½
International Petroleum Co.	10	28½	28⅝	34⅞	28⅛	35¼	28⅜	25⅜	22⅛
National Transit Co.	12.50	15	*15	17½	13⅝	30⅜	27¼	25½	16½
New York Transit	100	33	*33	36	31¼	51½	27¼	70	50
Northern Pipe Line	100	75¼	74½	88	70	80½	64	88	67½
Ohio Oil Co.	25	60½	*58	64¼	52	67⅜	55⅜	75¼	60
Penn-Mex Fuel	25	27⅜	27½	31	12	24¼	15	44	19
Prairie Oil & Gas	25	48⅜	47⅝	55¼	45⅝	60¼	48	65½	45⅞
Prairie Pipe Line	100	179	*178	185	132	137½	122½	129¾	105
Solar Refining Co.	100	182¾	*182	‡201½	185	212	184½	159	200
South Penn Oil	25	35	*35	31½	34½	50	35	‡197	139
Southwest Pa. Line	100	*65¾	*66	77	55½	56	47½	84	50
Southern Pipe Line	50	17½	*17	‡27¼	24	27	24	‡103	63
Standard of Indiana	25	67¼	66⅝	74¼	64¼	70½	60½	70⅜	69¼
Standard of Kansas	25	16⅝	*16	20⅞	15⅝	36½	16½	46	30¼
Standard of Kentucky	25	113	112	122¼	111⅝	134⅜	108	137	114⅜
Standard of Nebraska	25	44⅜	44	49½	45	51⅛	42	‡270	231
Standard of Ohio, com.	100	74	*73	‡354	294	362	192½	369	338
Swan & Finch, com.	25	17½	*18	17	15	21	18	27	12
Vacuum Oil	25	129½	*133	134	95⅛	109⅜	94⅛	109½	80⅛
Miscellaneous									
Gulf Oil Corp. of Pa.	25	90¼	91⅜	96½	86⅛	95	82½	98¼	63½

*Bid, no sales. ‡Old stock. †New stock.

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange was as follows:

July 11	59.36	June 6	59.27	May 2	57.13
July 2	58.99	May 28	58.68	Apr. 25	57.03
June 27	58.99	May 23	57.89	Apr. 18	57.42
June 20	60.46	May 16	58.10	Apr. 11	57.37
June 13	59.91	May 9	58.08	Apr. 4	56.63

GOOD GASOLINE DEMAND IN NORTH TEXAS AREA

WICHITA FALLS, Tex., July 11.—The activity in refined gasolines, principally U. S. Motor grade gasoline, featured the week for North Texas refiners. Movement of the product was better during the past week due to the improvement of the spot market. Trading in other grades of refined gasoline was slow.

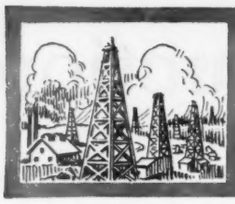
Considerable of the gasoline in the North Texas area is being moved on contracts made early in the month. But in Wichita Falls most of the contract gasoline was for delivery in that territory and little of it went to northern markets. In Fort Worth refiners report that most of their contract gasoline went to northern markets. One refiner in the latter city had an offer from a buyer who made a fairly large contract for delivery over June to northern markets, to double the order.

Refiners are making an effort to hold U. S. Motor gasoline to higher prices and in Fort Worth gasoline was steady at 6¾ cents flat. In Wichita Falls the market was fairly steady at from 6½ to 6⅝ cents. The continued activity in the spot market is expected to hold and improve during the week, in the opinion of most refiners.

Natural gasolines slumped back into the levels of a couple of weeks ago, after showing signs of strengthening a week ago. Some refiners, on the strength of the signs of a stronger market in naturals, made a few buys. But big buyers are still out of the market and as a result there is little activity in that market. A few manufacturers of the products are protected for a few days more through contracts made early in the month. But none of those contracts represent big buys.

Kerosene was reported weaker in some quarters and unchanged in others. Some refiners have reduced their stocks in kerosene and are continuing to do so. Improvement was noted in filling station sales in the South Plains country.

Distillate was about the same but an improvement is expected within a short time. Gins are expected to be started in operation soon and their orders will help the distillate market. Gas oil was slow during the week but its price held firm. Fuel oil was slightly improved. Some distress fuel was offered at 82½ cents if the buyer would furnish his own cars. As a whole though the fuel market appeared to be slightly improved.



REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

GASOLINE AND NAPHTHA

	July 12		July 5		June 28	
OKLAHOMA (Group 3)—						
50-52 450 end point (Naphtha)	.06½	.06¾	.06⅜	.06½	.06¼	.06⅜
56-58 450 endpoint	.06½	.06¾	.06½	.06⅝	.06¼	.06⅜
58-60 450 endpoint	.06⅝	.06¾	.06⅝	.06¾	.06½	.06⅝
58-60 437 endpoint (U. S. Motor)	.07		.06¾	.07	.06¾	
60-62 400 endpoint	.07⅛	.07¼	.07⅛		.07	
64-66 375 endpoint	.07¼	.07½	.07¼	.07⅜	.07⅛	.07¼
68-70 360 endpoint	.07½	.07¾	.07½	.07¾	.07½	
64-66 437 endpoint	.06⅝	.06¾	.06½	.06⅝	.06¼	.06½
KANSAS—						
58-60 437 endpoint (U. S. Motor)	.07	.07¼	.07	.07¼	.06¾	.07
NORTH TEXAS—						
56-58 437 endpoint	.06⅜	.06⅝	.06¼	.06½	.06¼	.06½
58-60 450 endpoint	.06⅜	.06½	.06¼	.06⅜	.06¼	.06⅜
58-60 437 endpoint (U. S. Motor)	.06⅝	.06¾	.06⅝	.06¾	.06½	.06⅝
60-62 400 endpoint	.06¾	.07	.06¾	.07	.06¾	.06⅞
64-66 390 endpoint	.07	.07⅛	.07		.07	
64-66 375 endpoint	.07	.07⅛	.07	.07⅛	.07	.07⅛
68-70 360 endpoint	.07¼		.07¼	.07½	.07¼	.07½
64-66 437 endpoint (blend)	.06½	.06⅝	.06½	.06¾	.06½	
NORTH LOUISIANA—						
56-58 437 endpoint (U. S. Motor)	.07¼		.07	.07¼	.07	
ARKANSAS—						
58-60 437 endpoint (U. S. Motor)	.07¼		.07	.07¼	.06¾	.07
PENNSYLVANIA—						
52-54 Naphtha	.07¾	.08½	.07¾	.08½	.07¾	.08½
54-56 Naphtha	.08½	.08¾	.08½	.08¾	.08½	.08¾
58-60 Gasoline	.08⅜	.08⅞	.08⅜	.08⅞	.08⅞	.09⅛
60 Gasoline	.09¼	.09½	.09¼	.09½	.09¼	.09½
62 Gasoline	.10	.10¼	.10	.10¼	.10	.10¼
64 Gasoline	.10¼	.10½	.10¼	.10½	.10¼	.10½
CALIFORNIA—						
58-60 437 endpoint (U. S. Motor) domestic	.09½	.10½	.09½	.10½	.08	.09
CHICAGO DISTRICT (Based on Group 3)—						
50-52 450 endpoint (Naphtha)	.06½		.06½	.06¾	.06¼	.06½
56-58 450 endpoint	.06⅝	.06¾	.06⅝	.06⅞	.06½	.06⅝
58-60 347 endpoint (U. S. Motor)	.06⅞	.07	.06¾	.07	.06¾	
60-62 400 endpoint	.07½		.07	.07⅛	.07	
64-66 375 endpoint	.07½	.07⅝	.07¼		.07¼	
68-70 360 endpoint	.07¾		.07½	.07¾	.07½	.07¾
64-66 437 endpoint (blend)	.06¾	.07	.06¾		.06½	

NATURAL GASOLINE

	July 12		July 5		June 28	
OKLAHOMA (Group 3)—						
Grade A, 72-79.9, 375 e.p., rec. 90%	.04½	.04⅝	.04½		.04½	
Grade AA, 80-87.9, 375 e.p., rec. 90%	.04⅝		.04½		.04½	
Grade B, 76-83.9, 375 e.p., rec. 85%	.04⅜		.04⅜		.04⅜	
Grade BB, 84-92, 375 e.p., rec. 85%	.04⅜		.04⅜		.04⅜	
Grade C, 80-90, 375 e.p., rec. 78%	.04¼	.04⅜	.04¼	.04⅜	.04¼	.04⅜
NORTH TEXAS—						
Grade A, 72-79.9, 375 e.p., rec. 90%	.04½		.04½		.04½	
Grade AA, 80-87.9, 375 e.p., rec. 90%	.04½		.04½		.04½	
Grade B, 76-83.9, 375 e.p., rec. 85%	.04¼	.04⅜	.04¼	.04⅜	.04¼	.04⅜
Grade BB, 84-92, 375 e.p., rec. 85%	.04¼	.04⅜	.04¼	.04⅜	.04¼	.04⅜
Grade C. 80-90, 375 e.p., rec. 78%	.04¼		.04¼		.04¼	
NORTH LOUISIANA—						
Grade AA, 80-87.9, 375 e.p., rec. 90%	.04½	.04¾	.04½	.04¾	.04½	.04¾
Grade BB, 84-92, 375 e.p., rec. 85%	.04½	.04¾	.04½	.04¾	.04½	.04¾
Grade C, 80-90, 375 e.p., rec. 78%	.04⅜	.04⅝	.04⅜	.04⅝	.04⅜	.04⅝
CALIFORNIA—						
75-85, 370, 390 endpoint	.08	.09	.10	.10½	.09	.10
CHICAGO DISTRICT (Based on Group 3)—						
Grade A, 72-79.9, 375 e.p., rec. 90%	.04½	.04¾	.04½		.04½	
Grade AA, 80-87.9, 375 e.p., rec. 90%	.04½	.04¾	.04½		.04½	
Grade B, 76-83.9, 375 e.p., rec. 85%	.04⅜		.04⅜		.04⅜	
Grade BB, 84-92, 375 e.p., rec. 85%	.04⅜	.04½	.04⅜		.04⅜	
Grade C, 80-90, 375 e.p., rec. 78%	.04¼	.04⅜	.04¼		.04¼	

BURNING OIL

	July 12		July 5		June 28	
KANSAS—						
41-43 water white Kerosene	.04¼	.04½	.04¼	.04½	.04⅜	.04½
OKLAHOMA (Group 3)—						
41-43 water white Kerosene	.04	.04¼	.04	.04¼	.04	.04¼
42-44 water white Keorsene	.04⅜	.04½	.04⅜	.04½	.04⅜	.04½
NORTH LOUISIANA—						
41-43 prime white Kerosene	.04½	.04¾	.04½	.04¾	.04½	.04¾
NORTH TEXAS—						
41-43 water white Kerosene	.03⅞	.04	.03¾	.04	.03¾	.04
40-42 water white Kerosene	.03¾	.03⅞	.03¾	.03⅞	.03¾	
ARKANSAS—						
41-43 water white Kerosene	.04¼	.04½	.04¼	.04½	.04¼	.04½
PENNSYLVANIA—						
43 Kerosene prime white	.06	.06¼	.06	.06¼	.06¼	.06½
45 Kerosene water white	.06⅛	.06⅜	.06¼	.06½	.06¼	.06½
46 Kerosene water white	.06⅝	.06⅞	.06¾	.07	.06¾	.07
47 Kerosene water white	.07	.07¼	.07	.07¼	.07	.07¼
300 Mineral Seal	.07¼	.07½	.07½	.07¾	.07½	.07¾
CALIFORNIA—						
38-40 water white Kero. (high burning test)	.05¾	.06½	.05¾	.06½	.05¾	.06½
Engine distillate, 43-45 445 endpoint	.08	.08½	.08	.08½	.07	.07½
Engine distillate, 42-44 480 endpoint	.07¾	.08	.07¾	.08	.06¾	.07
CHICAGO DISTRICT (Based on Group 3)—						
41-43 water white Kerosene	.04	.04¼	.04⅛	.04¼	.04⅛	.04¼
42-44 water white Kerosene	.04½		.04½		.04½	

FUEL OILS

	July 12		July 5		June 28	
KANSAS—						
24-26 Fuel Oil	.90	.95	1.00	1.05	1.00	1.05
32-36 Gas Oil	.02⅝	.02¾	.02¾	.03	.02¾	.03
38-40 Distillate	.03¼	.03½	.03½	.03⅝	.03½	.03⅝
OKLAHOMA (Group 3)—						
Below 18 Fuel Oil	.85	.90	.85	.90	.85	.90
18-22 Fuel Oil	.90	.92½	.90	.92½	.90	.92½
22-26 Fuel Oil	.90	.92½	.90	.92½	.90	.92½
24-26 Fuel Oil	.92½	.95	.92½	.95	.92½	.95
26-30 Fuel Oil	.95	.97½	.95	.97½	.95	.97½
28-30 Fuel Oil	1.00	1.05	1.00	1.05	1.00	1.05
32-36 Gas Oil (dark)	.02¾		.02⅝	.02¾	.02⅝	
32-36 Gas Oil (straw overhead)	.02¾		.02⅝	.02¾	.02⅝	.02¾
36-38 Distillate	.03⅛		.03⅛		.03⅛	
38-40 Straw Distillate	.03¼		.03¼		.03⅛	.03¼
NORTH TEXAS—						
24-26 Fuel Oil (sellers' cars)	.87½	.90	.90		.87½	.90
32-36 Gas Oil (straw)	.02⅝	.02¾	.02½	.02⅝	.02⅝	.02¾
38-40 Straw Distillate	.03		.03	.03⅛	.03	.03⅛
NORTH LOUISIANA—						
18-20 Fuel Oil	1.12½	1.15	1.12½	1.15	1.10	1.15
32-36 Gas Oil	.03	.03¼	.03	.03¼	.03	.03⅛
ARKANSAS—						
36-38 Distillate	.03½	.03¾	.03½	.03¾	.03½	.03¾
32-36 Gas Oil (straw)	.03¼	.03½	.03¼	.03½	.03¼	.03½
16-20 Refinery Fuel Oil	1.00	1.05	1.00	1.05	1.00	1.05
GULF COAST (South Texas)—						
Gas Oil	.04½	.04¾	.04½	.04¾	.04¼	.04⅜
Fuel Oil	1.60	1.65	1.60	1.65	1.50	1.60
PENNSYLVANIA—						
30-34 Fuel Oil	.04⅛	.04⅝	.04¼	.04¾	.04¼	.04¾
36-40 Fuel Oil	.04⅜	.04⅞	.04¼	.04¾	.04¼	.04¾
CALIFORNIA—						
33-36 Distillate	.03¾	.04	.03¾	.04	.03¾	.04
27-32 Distillate	.03¼	.03¾	.03¼	.03¾	.03¼	.03¾
*15-20 Fuel Oil, Bunkers (at tide water)	.85	1.00	.85	1.00	.85	1.00
15-20 Fuel Oil (cargo lots)	.71	.75	.71	.75	.71	.75
27 plus Diesel	1.15	1.19	1.15	1.19	1.15	1.19
CHICAGO DISTRICT (Based on Group 3)—						
24-26 Fuel Oil (sellers' cars) Group 3	.92½	.95	.95		.95	
22-26 Fuel Oil (sellers' cars) Group 3	.90	.92½	.92½	.95	.92½	.95
18-22 (Group 3)	.87½	.90	.90	.92½	.90	.92½
16-20 Smackover	1.10	1.15	1.10	1.15	1.10	1.15
32-36 Gas Oil (zero)	.02⅞	.03⅛	.03	.03⅛	.03	.03⅛
32-36 Gas Oil (industrial)	.02⅝	.02⅞	.02¾	.02⅞	.02¾	.02⅞
36-38 Distillate	.03	.03⅛	.03⅛	.03¼	.03⅛	.03¼
38-40 Straw Distillate	.03¼	.03⅜	.03¼	.03⅜	.03¼	.03⅜

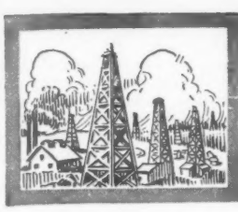
*Bunkers.

LUBRICATING OIL AND WAX

	July 12		July 5		June 28	
OKLAHOMA (Group 3)—						
100 vis., 2 color, 20-25 cold test	.06½	.06¾	.06½	.06¾	.06½	.06¾
100 vis., 3 color, 20-25 cold test	.06¼	.06½	.06¼	.06½	.06¼	.06½
150 vis., 3 color, 20-25 cold test	.08¼	.08¾	.08½	.08¾	.08½	.08¾
150 vis., 4 color, 20-25 cold test	.08¼	.08½	.08¼	.08½	.08¼	.08½
180 vis., 3 color, 23-28 cold test	.10	.10¼	.10	.10¼	.10	.10¼
180 vis., 4 color, 23-28 cold test	.09¾	.10	.09¾	.10	.09¾	.10
180 vis., 5 color, 23-28 cold test	.09½	.10	.09½	.10	.09½	.10
200 vis., 3 color, 23-28 cold test	.10½	.11	.10½	.11	.10½	.11
200 vis., 4 color, 23-28 cold test	.10⅜	.10⅞	.10⅜	.10⅞	.10⅜	.10⅞
200 vis., 5 color, 23-28 cold test	.10½	.10¾	.10½	.10¾	.10½	.10¾
240 vis., 3 color, 25-30 cold test	.14	.14¼	.14	.14¼	.15	.14¼
240 vis., 4 color, 25-30 cold test	.13½	.13¾	.13½	.13¾	.13½	.13¾
240 vis., 5 color, 25-30 cold test	.12½	.13	.12½	.13	.12½	.13
280 vis., 3 color, 25-30 cold test	.15¾	.16¼	.15¾	.16¼	.15¾	.16¼
280 vis., 4 color, 25-30 cold test	.15¼	.15½	.15¼	.15½	.15¼	.15½
280 vis., 5 color, 25-30 cold test	.14½	.15	.14½	.15	.14½	.15
Cylinder Stocks:						
600, steam refined, light green	.07	.09	.07	.09	.07	.09
600, steam refined, dark green	.05	.06	.05	.06	.05	.06
190-200 vis. @ 210 Bright Stock	.31	.33	.31	.33	.31	.33
150-160 vis. @ 210 Bright Stock	.26		.26		.26	
Waxes:						
124-126 White Crude Scale Wax	.02⅜	.02½	.02⅜	.02½	.02⅜	.02½
PENNSYLVANIA—						
34 Neutral	.07¼	.07½	.07¼	.07½	.07¼	.07½
34 Sundebloom Neutral	.08½	.08¾	.08½	.08¾	.08½	.08¾
36 Miners' Neutral	.06¾	.07	.06¾	.07	.07	.07¼
150, 3 color	.28¼	.28½	.28¼	.28½	.28¼	.28½
180, 3 color	.32¼	.32½	.32¼	.32½	.32¼	.32½
200, 3 color	.34¼	.34½	.34¼	.34½	.34¼	.34½
220, 3 color	.34¼	.36½	.34¼	.36½	.34¼	.36½
600, steam refined	.08¾	.09	.08¾	.09	.08¾	.09
635, steam refined	.10¼	.10½	.10¼	.10½	.10¼	.10½
650, steam refined	.12¼	.12½	.12¼	.12½	.12¼	.12½
600, Pennsylvania flash	.17½	.18	.17½	.18	.17½	.18
630, Pennsylvania flash	.26½	.27	.26½	.27	.26¼	.27
*550, E filtered	.17¼	.18	.17¼	.18	.17¼	.18
*600, E filtered	.18¼	.19	.18¼	.19	.18¼	.19
600, E filtered	.17¼	.17¾	.17¼	.17¾	.17¼	.17¾
600, D filtered	.25	.25½	.25	.25½	.25	.25½
550, E filtered	.17½	.18	.17½	.18	.17½	.18
550, D filtered	.21½	.22	.21½	.22	.21½	.22
Pennsylvania Bright Stock	.33	.33½	.33	.33½	.33	.33½
†122-124 White Crude Scale Wax	.02⅞	.03¼	.02⅞	.03¼	.02⅞	.03¼
†124-126 White Crude Scale Wax	.03⅛	.03¼	.03⅛	.03¼	.03⅛	.03¼

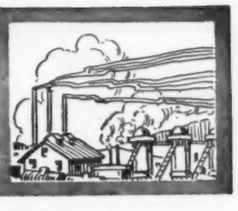
*At Warren, Pa. †At New York City.

GULF COAST (South Texas)—							
No. 2	color, 100 vis., pale oil	.07	.07½	.07	.07½	.07	.07½
No. 3	color, 200 vis., pale oil	.10	.11	.10	.11	.10½	.11
No. 3	color, 300 vis., pale oil	.11	.12	.11	.12	.11½	.12
No. 3½	color, 500 vis., pale oil	.13	.14	.13	.14	.13½	.14
No. 4	color, 750 vis., pale oil	.15	.16	.15	.16	.16	.16½
No. 5 to 6	color, 200 vis., red oil	.08½	.09	.08½	.09	.08½	.09
No. 5 to 6	color, 300 vis., red oil	.09½	.10	.09½	.10	.10	.10½
No. 5 to 6	color, 500 vis., red oil	.11	.11½	.11	.11½	.11½	.12
No. 5 to 6	color, 750 vis., red oil	.14	.14½	.14	.14½	.14½	.15
No. 2	color, 200 vis., pale filtered	.13	.14	.13	.14	.13	.14
No. 2	color, 300 vis., pale filtered	.14½	.15	.14½	.15	.14½	.15
No. 2½	color, 500 vis., pale filtered	.16	.17	.16	.17	.16	.17
No. 2½	color, 750 vis., pale filtered	.20	.21	.20	.21	.20	.21
CALIFORNIA—							
130 vis.; 2½-3	color	.10½	.11	.10½	.11	.10½	.11



REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields



200 vis., 2½-3 color	.11	.11½	.11	.11½	.11	.11½
300 vis., 3 -3½ color	.11½	.12	.11½	.12	.11½	.12
350 vis., 3½-4 color	.12	.13	.12	.13	.12	.13
400 vis., 3½-4 color	.13	.15½	.13	.15½	.13	.15½
Red Neutral:						
200 vis., 4½-5 color	.09½	.10½	.09½	.10½	.09½	.10½
300 vis., 5 -6 color	.10½	.11	.10½	.11	.10½	.11
400 vis., 5 -6 color	.12	.13½	.12	.13½	.12	.13½
500 vis., 4½-5 color	.13½	.14½	.13½	.14½	.13½	.14½
500 vis., 5 -6½ color	.12½	.13½	.12½	.13½	.12½	.13½
600 vis., 6 plus color	.13½	.14½	.13½	.14½	.13½	.14½

Note: Bright stocks are not manufactured commercially on the Pacific Coast.

NEW YORK (BAYONNE) REFINERY PRICES

	July 12	July 5	June 28
Gasoline, U. S. Motor, 58-60 437	.08¾	.08¾	.09
Kerosene, water white, 41-43	.07	.07	.07
*Fuel Oil, bunker "C," 14-16, per bbl.	1.65	1.65	1.65
*Fuel Oil, Diesel, 28-30, per bbl.	2.20	2.20	2.20
Gas Oil, 28 plus	.05½	.05½	.05½
25 pale Paraffin Oil	.12	.12	.12
28 pale Paraffin Oil	.07¼	.07¼	.07¼
285 red Paraffin Oil	.12¾	.12¾	.12¾
250 red Paraffin Oil	.11¾	.11¾	.11¾
225 red Paraffin Oil	.10¾	.10¾	.10¾
200 red Paraffin Oil	.09¾	.09¾	.09¾
Refined Wax:			
120-122 a.m.p., per lb.	.03⅞	.03⅞	.03⅞
125-127 a.m.p., per lb.	.04	.04	.04
130-132 a.m.p., per lb.	.04½	.04½	.04½
135-137 a.m.p., per lb.	.05	.05	.05
Petrolatum, in bbls.; carload lots, per lb.:			
Dark green	.01¾	.01¾	.01¾
Amber	.03¼	.03¼	.03¼
Extra amber	.03⅝	.03⅝	.03⅝
Cream	.05⅝	.05½	.05½
Lily white	.07	.07	.07
Snow white	.08	.08	.08

*Lighterage 6.5c a barrel extra.

NEW YORK (BAYONNE) EXPORT PRICES

	July 12	July 5	June 28
Gasoline, U. S. Motor, 58-60 437, in cases	.2440	.2440	.2440
Kerosene, standard white, in cases	.1615	.1615	.1615
Kerosene, water white, in cases	.1715	.1715	.1715
600 steam refined cylinder stock, in bbls.	.17	.17	.17
635 steam refined	.19	.19	.19
650 steam refined	.21	.21	.21
600 Pennsylvania flash	.25	.25	.25
630 Pennsylvania flash	.34	.34	.34
600 Warren E	.36	.36	.36
600 Oil City E	.24½	.24½	.24½
Light 135 Bright Stock	.41	.41	.41
Dark 135 Bright Stock	.39	.39	.39

LOS ANGELES EXPORT PRICES

	July 12		July 5		June 28	
Kerosene water white	.04¼	.04½	.04¼	.04½	.04¼	.04½
U. S. Motor Gasoline, 53-55 437 e.p.	.06¼	.06¾	.06¼	.06¾	.05½	.06½

CALIFORNIA CRUDE PRICES

***Standard Oil Co.-Union Oil Co. (Effective April 1, 1927)**

Gravity—	Fullerton, Seal Beach, Long Beach, Huntington Beach, Richfield, Rosecrans-Dom'gues, Torrance-Inglewood 1	Whittier, La Habra, Montebello 2	Kern River, Newhall-McKittrick, Midway-Sunset, Elk Hills, Lost Hills, Belridge, Buena Vista Hills, Coyote 3	Santa Fe Springs 4	Conlinga 5	Wheeler Ridge 6	Santa Maria, Ventura, Orcutt, Salt Lake 7	8
14°	.85	.85	.75	.85	....	.75	.75	.85
15°	.85	.85	.76	.85	....	.75	.76	.85
16°	.85	.85	.75	.85	....	.75	.75	.85
17°	.85	.85	.76	.85	....	.75	.75	.85
18°	.85	.85	.75	.85	....	.75	.75	.85
19°	.85	.85	.75	.85	....	.75	.75	.85
20°	.85	.85	.77	.85	....	.76	.76	.85
21°	.86	.85	.79	.86	.85	.77	.77	.85
22°	.87	.85	.81	.87	.85	.78	.78	.85
23°	.88	.85	.83	.88	.85	.79	.79	.85
24°	.89	.85	.85	.89	.85	.80	.80	.85
25°	.90	.86	.87	.90	.86	.81	.81	.86
26°	.92	.87	.89	.91	.87	.83	.82	.87
27°	.94	.88	.91	.92	.88	.85	.83	.88
28°	.96	.89	.93	.93	.89	.87	....	.89
29°	.98	.90	.96	.94	.91	.89	....	.91
30°	1.00	.91	.99	.95	.93	.91	....	.93
31°	1.03	....	1.02	....	.95	.93	..	.95
32°	1.06	....	1.05	....	.97	.95	....	.97
33°	1.09	....	1.08	....	.99	.97	....	.99
34°	1.12	....	1.11	....	1.01	.99	....	1.01
35°	1.15	....	....	....	1.03	1.01	....	1.03
36°	1.18	....	....	....	1.06	....	..	1.06
37°	1.21	....	....	....	1.09	....	....	1.09
38°	1.24	....	....	....	1.12	....	....	1.12
39°	1.27	....	....	....	1.15	....	....	1.15
40°	1.30	....	....	....	....	....	....	....
41°	1.33	....	....	....	....	....	....	....
42°	1.36	....	....	....	....	....	....	....

*Column 1—Long Beach, Seal Beach and Huntington Beach crudes, 14 to 32 degrees, inclusive; Richfield and Fullerton, 14 to 30 degrees; Torrance and Inglewood, 14 to 28 degrees; Domingues, 24 to 42 degrees. Rosecrans crude ranges from 14 to 42 degrees, but only Union Oil Co. posts below 24 degrees.

Column 2—Whittier crude, 14 to 22 degrees; Montebello, 14 to 30 degrees.

Column 3—Kern River, Newhall and McKittrick, 14 to 19 degrees; Midway-Sunset, Buena Vista and Elk Hills, 14 to 33 degrees; Lost Hills and Belridge, 14 to 34 degrees.

Column 8—Salt Lake, 14 to 19 degrees, inclusive; Santa Maria, 14 to 30 degrees; Ventura and Orcutt, 14 to 39 degrees. Posted only by Union Oil Co.

CRUDE OIL GRAVITY PRICE TABLE

Gravity—	Okla., Kans., N. C. Tex., La.-Ark. 1	Smackover, Ark. 2	Stephens, Ark. 3	Wheeler and Gray Counties (Texas Panhandle) 4	Crane, Upton Crockett Counties (West Texas) 5	Salt Creek, Wyo. 6	Grade B & Light Crude (G. Coast) 7	Somerset, (South Central Texas) 8
Below 24	....	1.00	....	....	....	....	....	....
24 and above	....	1.25	....	....	....	....	....	....
Below 25	....	....	....	....	....	....	1.16	....
25 to 25.9	....	....	....	....	....	....	1.17	....
Below 26	....	....	....	....	.70	....	....	....
26 to 26.9	....	....	....	....	.72	....	1.19	....
27 to 27.9	....	....	....	....	.74	....	1.21	....
Below 28	****	....	1.00	....	....	....	....	....
28 to 28.9	1.12	....	1.02	.80	.76	..	1.23	....
29 to 29.9	1.14	....	1.04	.82	.78	1.14	1.25	....
30 to 30.9	1.16	....	1.06	.84	.80	1.16	1.27	....
31 to 31.9	1.18	....	1.08	.86	.82	1.18	1.29	....
32 to 32.9	1.20	....	1.10	.88	.84	1.20	1.31	1.05
33 to 33.9	1.22	....	....	.90	.86	1.22	1.33	1.07
34 to 34.9	1.24	....	....	.92	.88	1.24	1.35	1.09
35 to 35.9	1.26	....	....	.94	.90	1.26	1.37	1.11
36 to 36.9	1.28	....	....	.96	.92	1.28	....	1.13
37 to 37.9	1.30	....	....	.98	....	1.30	....	1.15
38 to 38.9	1.32	....	....	1.00	....	....	....	1.17
39 to 39.9	1.34	....	....	1.02	....	....	....	....
40 to 40.9	1.36	....	....	1.04	....	....	....	....
41 to 41.9	1.38	....	....	1.06	....	....	....	....
42 to 42.9	1.40	....	....	1.08	....	....	....	....
43 to 43.9	1.42	....	....	1.10	....	....	....	....
44 to 44.9	1.44	....	....	1.12	....	....	....	....
45 to 45.9	1.46	....	....	....	....	....	....	....
46 to 46.9	1.48	....	....	....	....	....	....	....
47 to 47.9	1.50	....	....	....	....	....	....	....
48 to 48.9	1.52	....	....	....	....	....	....	....
49 to 49.9	1.54	....	....	....	....	....	....	....
50 to 50.9	1.56	....	....	....	....	....	....	....
51 to 51.9	1.58	....	....	....	....	....	....	....
52 and above	1.60	....	....	....	....	....	....	....

Column 1—Magnolia Petroleum Co. posted new schedule May 5, making price below 33 gravity $1.05 per barrel, with 2 cents increase per degree higher in gravity, taking 33-33.9 gravity at $1.07 as basis, with a top price of $1.45 for 52 and above.

Oklahoma: Prairie Oil & Gas Co., Sinclair Oil & Gas Co., Gypsy Oil Co., March 12; Carter Oil Co., The Texas Company, March 14.

North Central Texas—(Including Ranger, Mexia, Powell, Richland, Wortham, Lytton Springs (Southwest Texas), Iatan and Panola (Magnolia only), Currie, Nocona, Moran and Corsicana light): Texas, Prairie, Sinclair and Gulf, March 12; The Texas Company, Humble Oil & Refining Co., March 14.

Kansas—Prairie, Sinclair, March 12; Carter, Texas, March 14.

Arkansas and North Louisiana—(Caddo, Bull Bayou, Crichton, DeSoto, Haynesville, Homer and El Dorado only); Standard Oil Co. of Louisiana, March 14; The Texas Company, March 14; Magnolia Petroleum Co., Pine Island, Haynesville and Bull Bayou, El Dorado, Gulf Pipe Line Co., March 14.

Column 2—Standard Oil Co. of Louisiana, The Texas Company, Gulf, Atlantic, March 17, Magnolia Petroleum Co. (March 16) posted price of $1 for below 24 degrees and $1.16 for 24 and above. Louisiana Oil Corp., July 6 and Atlantic Oil Producing Co., July 7.

Column 3—Atlantic Oil Producing Co., March 14.

Column 4—Humble Oil & Refining Co. and Gulf Pipe Line Co., March 14.

Column 5—Humble Oil & Refining Co., Kay County Gas Co. and Gulf Pipe Line Co., March 14.

Column 6—Midwest Refining Co., March 12. All crude over 37 gravity, $1.30 per barrel.

Column 7—Humble Oil & Refining Co. and other major buyers (schedule ends "35 and above"), March 14, with exception of Magnolia Petroleum Co., which stops at 31 degrees gravity. Sun Pipe Line Co. posts 2 cents differential for each degree above 35 gravity and $1.47 for 40 gravity and above.

Column 8—Grayburg Pipe Line Co. and Pioneer Oil & Refining Co., April 7.

****Prices for crude below 28 gravity: Oklahoma, Kansas and Texas, Magnolia Petroleum Co., $1.10, March 12; Arkansas, North Louisiana, March 14. Other companies, 2 cents less for each degree with exception of Humble Oil & Refining Co., which pays $1.12 for crude below 28 degrees gravity.

CRUDE OIL PRICES

OKLAHOMA, KANSAS, NORTH AND EAST CENTRAL TEXAS

*Corsicana heavy (March 14, 1927)	$1.00
Other fields	See gravity table

*Posted by Magnolia Petroleum Co.

TEXAS PANHANDLE

*Carson County	$ .95
*Hutchinson County	.95
Gray-Wheeler Counties	See gravity table

*Humble Oil & Refining Co., Magnolia Petroleum Co., Gulf Pipe Line Co. and Kay County Gas Co., March 14.

WEST TEXAS

*Iatan (Same as North Texas)	
Crane-Upton-Crockett	See gravity table

*Includes Howard County and Westbrook Fields. Kay County Gas Co. pays $1.06 for Howard County crude, effective May 21.

ARKANSAS-NORTH LOUISIANA

Cotton Valley (March 17)	$1.00
Bellevue (Feb. 24, 1927)	1.25
Urania (March 16, 1927)	1.00
East El Dorado (March 16)	1.00
Other fields	See gravity table

Note—Cotton Valley and Bellevue, Standard Oil Co. of Louisiana, Gulf Refining Co. and Magnolia Petroleum Co.; Urania, Louisiana Oil Refining Corp.; East El Dorado, Magnolia Petroleum Co.

GULF COAST

(Goose Creek, Hull, Liberty, West Columbia, Orange, Boling, Sour Lake, Humble, High Island, Pierce Junction and Spindletop.)

‡Grade A (March 14)	$1.20
Grade B	See gravity table
*Jennings, La. (March 14)	1.05
†Saratoga, Batson, Dayton (March 14, 1927)	1.00
**Markham (March 14)	1.00

*Gulf Pipe Line Co. †Sun Pipe Line Co. ‡Humble Oil & Refining Co. and other major buyers. **The Texas Company.

SOUTH CENTRAL AND SOUTHWESTERN TEXAS

*Luling (May 5)	$1.00
†Mirando (March 14)	1.00
Rockdale-Minerva (Milam County)	1.25
*Thrall	....
Callihan (May 15)	1.75
Lytton Springs (Lockhart)	See gravity table
Somerset	See gravity table

*Posted by Magnolia Petroleum Co. Thrall prices same as north central Texas less 19½ cents per cwt. freight.

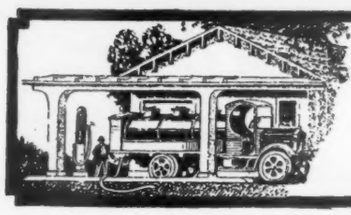
†Magnolia Petroleum Co., Humble Oil & Refining Co., Crown Central Pipe Line Co.

ROCKY MOUNTAIN STATES

Ohio Oil Co.-Midwest Refining Co.
(Effective March 14)

Rock Creek, Wyo. (March 12.	$1.25
Salt Creek	See gravity table
Big Muddy (March 12)	1.25
Mule Creek (May 1)	1.10
Grass Creek, light (March 12)	1.33
Grass Creek, heavy	.98
Elk Basin (March 12)	1.33
Lance Creek (March 12)	1.33
Poison Spider	1.00
Notches	.65
Rex Lake (February 23)	1.10
Osage	1.33
Lost Soldier (contract) (May 17)	1.60
Greybull-Torchlight	1.33
Hamilton Dome	1.35
Cat Creek (Mont.)	1.33
Sunburst (Mont.) (October 8)	1.35
Artesia (March 12)	1.00

(Continued on Page 138)



TANK WAGON MARKETS

Tank wagon quotations for gasoline and kerosene in United States as furnished by the larger marketing concerns July 12.

ALL TANK WAGON AND SERVICE STATION QUOTATIONS INCLUDE TAXES

STANDARD OIL CO. (INDIANA)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Chicago dist. ..	14.0	16.0	...	12.0
Decatur, Ill. ..	14.2	16.2	...	12.1
E. St. Louis ...	13.1	15.35	...	11.2
Joliet	14.4	16.4	...	12.3
Peoria	14.2	16.2	...	12.1
Quincy	14.2	16.2	...	10.9
Davenport, Ia.	17 5	19 5	3.0	12 3
Des Moines ...	17 0	19 0	3.0	12 3
Keokuk	17 5	19.5	3.0	12 3
Sioux City ..	17.1	19.1	3.0	11.9
Duluth, Minn. .	15.5	17.5	2.0	12.9
Minneapolis ...	14.0	16.0	2.0	12.9
Mankato	17.1	19.1	2.0	12.7
LaCross, Wis ..	17.2	19.2	2.0	13.0
Milwaukee ...	16.1	18.1	2.0	11.9
Madison	16.3	18.3	2.0	12.1
Detroit, Mich. .	16.8	18.8	2.0	12.7
Grand Rapids	16.7	18.7	2.0	13.6
Saginaw	16.9	18.9	2.0	13.6
Evansville, Ind.	17.0	19.0	3.0	13.0
Ft. Wayne	17.4	19.4	3.0	13.4
Indianapolis ..	17.2	19.2	3.0	13.2
South Bend ...	17.4	19.4	3.0	13.4
Fargo, N. D. ..	17.0	19.0	2.0	14.9
Huron, S. D. .	16.5	18 5	4 0	13 9
Sioux Falls ...	18 3	20 3	4.0	13 4
K. C. Mo.	14.9	16.9	3.0	10.6
*Springfield ...	16.8	18.8	3.0	11.5
*St. Louis	15.6	17.9	2.5	11.3
*St. Joseph ...	16.5	18.5	3.0	11.2
Wichita, Kans..	14.8	16.8	2.0	10.8
Bartlesville, Ok.	15.8	17.8	3.0	10.8

NAPHTHAS

	Tank wagon	Tank car
Oleum spirits	16.0	11.75
V. M. & P. naphtha	18.0	13.75
Cleaner's naphtha	18.0	13.75
Stanisol	19.0	.....

Tank wagon prices f.o.b. Chicago; tank car prices f.o.b. Whiting.

STANOLIND FURNACE OIL

Less than 100 gallons	9.0
100 to 799 gallons	8.0
800 or more gallons	7.5

Tank wagon prices of gasoline subject to discount of 1 cent a gallon on dumps of 50 gallons or more throughout territory except Chicago district where discount applies only to dumps of 100 gallons. Kerosene subject to 1 cent discount on dumps of 50 gallons or more.

Outside the Chicago district, the following quantity discount schedule is in effect on monthly tank wagon deliveries of gasoline: 6,000 gallons or more, 1½ cents; 10,000 gallons or more, 2 cents; 15,000 gallons or more, 3 cents. These discounts include the 1 cent allowed on dumps of 50 gallons or more at one delivery.

Within the Chicago district the following quantity discount schedule is in effect on tank wagon deliveries of gasoline: 750 to 2,000 gallons, one-half cent; 2,000 to 3,000 gallons, three-fourths cent; 3,000 to 6,000 gallons, 1 cent; 6,000 to 10,000 gallons, 1¼ cents; 10,000 to 15,000 gallons, 2 cents; 15,000 gallons or more, 3 cents. These discounts are in addition to the special discount of 1 cent on dumps of 100 gallons or more at one delivery.

If the quantity bought during the year is equal to or exceeds 12 times the agreed monthly quantity, the discount is paid or credited on the entire quantity at the close of the term less the monthly payments made during the year.

*State tax 2 cents; remainder city tax.

OHIO

Standard Oil Co. (Ohio)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
All Ohio points	19.0	21.0	3.0	15.0

SOUTHWESTERN DISTRICT

***Magnolia Petroleum Co.**

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Dallas, Tex. ...	15.0	18.0	3.0	11.0
Fort Worth ...	15.0	18.0	3.0	10.0
Houston	15.0	19.0	3.0	16.0
San Antonio ...	15.0	18.0	3.0	11.0
El Paso	17.0	19.0	3.0	16.0
Texarkana	15.0	18.0	3.0	12.0
Muskogee, Ok..	14.0	17.0	3.0	09.0
Okla. City	14.0	17.0	3.0	09.0
Tulsa	14.0	17.0	3.0	09.0
Ft. Smith, Ark.	18.0	21.0	5.0	12.0
Little Rock ...	18.0	21.0	5.0	12.0

*The following is the schedule of discounts on quantity gasoline sales adopted by the Magnolia Petroleum Co. in Oklahoma: Over 750 gallons a month, one-half cent; over 2,000 gallons, three-quarters cent; over 3,000 gallons, 1 cent; over 4,500 gallons 1¼ cents; over 6,000 gallons, 1½ cents; over 9,000 gallons, 1¾ cents; over 10,000 gallons, 2 cents. If the quantity bought during the year is 12 times the monthly agreed purchases, the discount will be paid or credited on the entire quantity for the year less any monthly purchases.

The schedule on service station deliveries is: Over 200 gallons a month, 1 cent; over 300 gallons a month, 1¼ cents; over 400 gallons, 1½ cents; over 500 gallons a month, 1¾ cents; over 600 gallons, 2 cents. The same rule applies for annual purchases in the tank wagon discounts.

CENTRAL SOUTH DISTRICT

Standard Oil Co. (Louisiana)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
*N. Orleans, La.	15.5	18.5	3.0	14.0
Baton Rouge ..	14.0	17.0	2.0	13.5
Alexandria	15.0	18.0	3.0	14.0
LaFayette	15.0	18.0	3.0	13.5
Lake Charles ..	15.5	18.5	3.0	14.0
Shreveport . ..	15 5	18 5	3.0	13.0
Knoxville, Tenn.	19.5	22.5	3.0	15.0
Memphis . ..	15 0	18.0	3.0	14.0
Chattanooga ..	19.5	22.5	3.0	15.0
Nashville	18.0	21 0	3.0	15.0
Bristol	19.0	22.0	3.0	14.0
Lit. Rock, Ark.	18.0	21.0	5.0	12.0

*Tax of 3 cents includes city tax of 1 cent.
*Louisiana kerosene prices include 1-cent state tax and 1-cent parish tax.

SOUTHERN DISTRICT

Standard Oil Co. (Kentucky)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Atlanta, Ga. ...	18.0	21.0	4.0	15.0
Augusta	19.0	22.0	4.0	16.0
Macon	19.0	22.0	4.0	16.0
Savannah	16.0	18.0	4.0	14.0
Birm'h'm, Ala.	18.0	21.0	4.0	15.5
Mobile	17.0	20.0	4.0	15.0
Montgomery ..	19.0	22.0	5.0	16.5
Clarks'le, Miss.	17.0	20.0	4.0	12.5
Jackson	17.0	20.0	4.0	14.5
Natchez	16.5	19.5	4.0	14.0
Gulfport . ..	18.5	21.5	6.0	14 0
Vicksburg	16.5	19.5	4.0	14.0
Jack'ville, Fla.	18.0	21 0	5.0	14 0
Miami	20 0	23 0	5.0	14 0
Pensacola	19 0	22 0	5 0	15 5
Tampa	17.0	20.0	5.0	15.0
Lexington, Ky.	18.0	21.0	5.0	15.5
Covington, Ky.	19.0	22.0	5.0	16.5
Louisville	19.0	22.0	5.0	15.0

In addition to the state tax of 2 cents on gasoline, Montgomery has city tax of 1 cent on gasoline and one-half cent on kerosene. Prices in Georgia include one-half cent inspection fee on gasoline and kerosene; in Florida, an inspection fee of 0.125 cent; in Alabama, an inspection fee of one-half cent on kerosene only. Pensacola tax includes 1 cent city levy. Gulfport tax includes privilege tax of 2 cents in addition to state tax.

PENNSYLVANIA-DELAWARE AND PART NEW ENGLAND

Atlantic Refining Co.

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Pittsburgh, Pa.	16.0	*21.0	...	14.0
Philadelphia ..	13.0	17.0	...	14.0
Scranton	16.0	*21.0	...	14.0
Allentown . ..	16.0	*21.0	...	14.0
Altoona	16.0	*21.0	...	14.0
Erie	14.0	19.0	...	14.0
Dover, Del. ...	19.0	22.0	3.0	14.0
Wilmington ...	19.0	22.0	3.0	14.0
Spring'd, Mass.	17.0	19.0	...	15.0
Worchester ...	17.0	19.0	...	15.0
Boston	17.0	19.0	...	15.0
Providence, R.I.	18.0	20.0	1.0	15.0
Hartford, Conn.	21.0	23.0	2.0	15.0
New Haven ...	21.0	23.0	2.0	15.0

*Includes tax of 2 cents. Pennsylvania tax is collected by the dealer and paid by him direct to the state.

NEW YORK AND PART OF NEW ENGLAND DISTRICT

Standard Oil Co. (New York)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Albany, N. Y. .	19.0	21.0	...	15.0
*New York	19.0	23.0	...	15.0
Buffalo	18.0	21.0	...	14.0
Rochester . ..	13.0	16.0	...	14.0
Syracuse	19.0	21.0	...	15.0
Boston, Mass. .	17.0	19.0	...	15.0
Augusta, Me. ..	22.0	26.0	3.0	15.0
M'nchest'r, N.H.	17.0	21.0	2.0	15.0
Burlington, Vt.	21.0	23.0	2.0	15.0

*Price in steel barrels.

PACIFIC COAST DISTRICT

Standard Oil Co. (California)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
San Francisco .	16 0	20 0	2 0	15.5
Pueblo	17 0	17 0	2.0	15.5
Los Angeles ..	15 5	19 5	2 0	15.5
Reno, Nev. ...	22.0	26 0	4 0	19.0
Portland, Ore. .	17 5	21.5	3 0	16.5
Seattle, Wash..	16 5	20 5	2 0	16.5
Tacoma	16 5	20 5	2.0	16 5
Spokane	20.5	24.5	2.0	20.5
Phoenix, Ariz..	22.0	26.0	3.0	20.5

ATLANTIC COAST DISTRICT

Standard Oil Co. (New Jersey)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Atlantic City .	18 0	....	2.0	14 0
Newark, N. J..	18 0	20 0	2 0	14 0
Annapolis, Md..	20 0	23.0	4.0	12.0
Baltimore	20.0	23.0	4.0	10.0
Cumberland ...	20.0	23.0	4.0	14.0
Washington . .	18 0	21.0	2.0	12.0
Danville, Va. ..	20.5	....	4.5	14.0
Norfolk	20.5	20 5	4 5	12 0
Petersburg	20.5	23.5	4.5	14.0
Roanoke	20.5	23.5	4.5	14.0
Richmond	20.5	23.5	4.5	14.0
Charleston, W. Va.	20 0	23.0	4 0	13.0
Keyser	20 0	....	4 0	14 0
Parkersburg . .	17 0	20 0	4 0	14.0
Wheeling	20 0	23 0	4.0	14 0
Charlotte, N. C.	20.0	23.0	4.0	14.0
Hickory	20.0	23.0	4.0	14.0
Mt. Airy	20.0	23.0	4.0	14.0
Salisbury	20.0	23.0	4.0	14.0
Charl'stn, S. C.	20.0	23.0	5.0	14.0
Columbia	20.0	20.0	5.0	14.0

NEBRASKA

Standard Oil Co. (Nebraska)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Omaha	14.25	16.25	2.0	12.25
McCook	17.75	17.75	2.0	13.75
Norfolk	16.75	18.75	2.0	12.75
N. Platte	17.75	19.75	2.0	13.50
Scottsbluff	17.25	19.25	2.0	13.00

ROCKY MOUNTAIN DISTRICT

Continental Oil Co.

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Denver, Colo. ..	18.0	20.0	2.0	14.5
Pueblo	18.0	20 0	2 0	14.5
Grand Junction	21.5	23 5	2 0	18 0
Casper, Wyo. ..	18.0	20.0	3.0	13.0
Cheyenne	19.0	21.0	3.0	14.5
Butte, Mont. ...	22.0	22.0	3.0	19.0
Helena	23.5	24.5	3.0	19.0
Salt Lake, Utah	21.0	23.0	3.5	17.0
Boise, Idaho...	23.5	25.5	4.0	19.0
Twin Falls	23.5	25.5	4.0	19.0
Albu'que, N. M.	21.0	24.0	5.0	17.0

TANK WAGON CHANGES

July 1.—Standard Oil Co. of Indiana increased the gasoline tank wagon and station prices 1 cent in South Dakota to equalize the tax increase from 3 to 4 cents, effective on that date.

July 4.—Standard Oil Co. of Indiana increased the gasoline tank wagon and station prices 1 cent in Iowa to equalize the tax increase from 2 to 3 cents, effective on that date.

CRUDE CHANGES

July 6.—Louisiana Oil Refining Co. posted Smackover crude below 24 gravity at $1 and 24 gravity and above at $1.25. This new schedule is the same as that adopted by the Standard Oil Co. of Louisiana and others on March 16.

July 7.—The Atlantic Oil Production Co. adopted the above schedule also.

LINDBERGH URGED TO VISIT EXPOSITION

(Continued from Page 34)

ground that the exposition will be a great clearinghouse for the industry.

Exhibits have been listed from practically all parts of the country and over 50 firms, said to be new to the Mid-Continent country, at least, are on the list.

Exhibits are expected from several countries, particularly from Canada, Ecuador and Japan.

Planning the Details

The past week was marked by direct activity of the committees and others in working out details of the exposition. Don Wallace, chairman of the safety drills and contests committee, who is the head of the safety division of the Mid-Continent Oil and Gas Association, announced that he had secured a meeting of the entire division here for the opening day of the exposition and that the Mid-Continent drills and contests would fill the first afternoon.

United States Senator Thomas of Oklahoma secured for the exposition the procedure for inviting foreign ambassadors, ministers and various grades of officials. The invitations are to be transmitted by the third assistant secretary of state through diplomatic channels.

Hotel reservations have been started and exhibitors and prominent visitors are given preference. Efforts are made by the committee on hotels to ascertain the wishes of exhibitors. A large number of reservations have already been made.

Dr. Charles N. Gould, director of the Oklahoma Geological Survey, will take an active part in preparing a display, which is to be a permanent geological exhibition at Tulsa. The scientific and technical committee has split itself into sections to promote the features of the display.

The promise of the exposition officials to put the technical and scientific side foremost on all occasions appears to be working out. It is now apparent that the display of new inventions and wares and processes will be the greatest yet.

Manager Gibbons announced Tuesday that the list of exhibitors had reached 135, that many contracts have been closed and a large number are pending.

An additional late list of exhibitors announced by Mr. Gibbons is: J. H. Williamson & Co., Buffalo, N. Y.; Fluor Construction Co., Tulsa; Allys-Chalmers Manufacturing Co., Milwaukee, Wis.; Gould Pumps, Seneca Falls, N. Y.; Cameron Tool & Supply Co., Cameron, W. Va.; H. H. Breene, Tulsa; Griscom-Russell Co., New York; Walter O'Bannon Co., Tulsa; Southern Mill & Manufacturing Co., Tulsa; Chaplin-Fulton Manufacturing Co., Pittsburgh, Pa.

EDDIE R. HAYS DIES

Eddie R. Hays, an oil man of Nocona, Tex., died there recently. For a number of years he was connected with the Gulf Oil Co. Later he entered business for himself and was well known in the oil fields of Texas and Oklahoma.

CRUDE OIL PRICES

(Continued from Page 137)

Hogback (N. Mex.) (March 14)	1.30

Note: Salt Creek, Osage, Cat Creek, Greybull and Hogback posted by Midwest Refining Co., and the remainder by the Ohio Oil Co. Both companies post Grass Creek light and Elk Basin.

EASTERN STATES

Joseph Seep Purchasing Agency
(Effective April 13)

Penna Grade Oil in New York Transit Line (New York)	$2.90
Bradford District Oil in National Transit Lines (Pennsylvania)	2.90
Penna Grade Oil in National Transit Lines (Pennsylvania)	2.80
Penna Grade Oil in Southwest Pennsylvania Lines (West Virginia)	2.80
Penna Grade Oil in Eureka Pipe Line Lines (Pennsylvania)	2.75
Penna Grade Oil in Buckeye Pipe Line Lines (Ohio)	2.60
Cabell Grade Oil in Eureka Pipe Line Lines (West Virginia) March 16.....	1.40
Corning 36-cent grade oil in Buckeye Pipe Line Co.'s line (March 17)	1.35
Corning 25-cent grade oil in Buckeye Pipe Line Co.'s lines (March 17).....	1.45
Somerset Oil in Cumberland Pipe Line Lines (Kentucky) March 16	1.50
Ragland Grade Oil in Cumberland Pipe Line Lines (Kentucky)	.95
Keister (Pennsylvania)	1.10

MIDDLE WESTERN STATES

Ohio Oil Co.
(Effective March 14)

Lima	$1.71
Wooster	1.77
**Saginaw, Mich., Saginaw Sand (May	1.60
Illinois	1.48
Indiana	1.60
Princeton	1.60
Plymouth	1.33
Waterloo (Nov. 17, 1926)	1.35
*Western Kentucky	1.33
**Saginaw, Mich., Berea Sand (May 27)	1.95
27)	2.05
†Cumberland, Barren, Clinton and Monroe Counties, Kentucky (March 16)..	1.50
‡Oil in lines of Stoll Oil Refining Co. in Oil City, Ky. (March 16, 1927)	1.50
†Clay County, Tennessee (November 18	2.35
§Oil Springs (Canada)	2.18
§Petrolia (Canada)	2.11

*Posted by Ohio Oil Co.
†Posted by Paragon Development Co.
‡Posted by Stoll Oil Refining Co.
§Posted by Imperial Oil Co., Ltd.
**Posted by Sun Oil Co.

*Tuxpam light (f.o.b. Mex. ports).....	$1.35
†Panuco heavy (f.o.b. Mex. ports).....	1.15
Tuxpam (New York)	2.15
Panuco (New York)	1.90

*Plus $2.328c tax. †17.681c tax.

This SIGN is a *Satisfaction Signal* to motorists!

Authorized Dealer

SINCLAIR OPALINE MOTOR OIL
REG. U. S. PAT. OFF.

Seals Power at every Degree of Wear

WHEN a motorist buys oil at the station which displays this sign, he gets *correct lubrication*— and the Dealer gets more steady business, because the motorist is satisfied!

The method for recommending Opaline Motor Oil (used only by Authorized Opaline Dealers) is an outstanding success! That's because it is the correct method, based on the Sinclair Law of Lubrication. It provides different grades of Opaline to fit the different degrees of wear in automobile engines, as indicated by the mileage on motorists' speedometers. Opaline Dealers ask the motor oil customer his mileage—consult the Sinclair Recommendation Index, and then give him the correct grade. The motorist feels the difference in his car immediately and remembers which Dealer gave him that difference!

May we tell you about this successful method of selling *correct lubrication* with the full line of Opaline Motor Oils?

SINCLAIR REFINING COMPANY, INC.

Also Makers of Sinclair Gasoline and H-C Gasoline

45 NASSAU STREET, NEW YORK

Atlanta Boston Chicago Houston Kansas City

Entire contents copyrighted 1927 by Sinclair Refining Company, Inc.

MINOR CHANGES IN PLANT OPERATIONS

(Continued from Page 32)

Name and Location—	Daily Capacity	Runs July 1	Runs June 1
Vickers Petroleum Co., Potwin	3,500	1,800	1,860
White Eagle Oil & Refining Co., Augusta	8,000	5,500	5,500
West Missouri Group—			
Alliance Rubber Producing Co., Centropolis	2,000	Shut down	Shut down
Wilhoit Refining Co., Joplin	1,500	800	1,000
Total	130,000	88,300	83,860

REFINERY OPERATIONS IN ARKANSAS

(Plants which have been in operation during the past year.)

Name and Location—	Daily Capacity	Runs July 1	Runs June 1
Henry H. Cross Co., Smackover	4,000	4,000	4,000
Home Refining Co., Camden	500	Shut down	Shu. down
Home Oil & Refining Co., Hot Springs	500	Shut down	Shut down
Houston Oil Co., Camden	3,000	2,300	2,300
Kettle Creek Refining Co., Pearson	6,000	2,500	2,500
Lion Oil & Refining Co., El Dorado	12,000	6,500	6,200
Newark Refining Co., El Dorado	1,800	1,100	1,350
Ouachita Valley Refining Co., El Dorado	1,000	700	650
Root Refineries, El Dorado	2,500	2,000	2,100
Simms Oil Co., Smackover	1,000	1,100	1,100
E. M. Tulle, El Dorado	1,000	Shut down	Shut down
Total	34,300	20,200	20,200

REFINERY OPERATIONS IN NORTH LOUISIANA

(Plants which have been in operation during the past year.)

Crystal Oil Refining Corp., Shreveport	10,500	6,500	6,500
Great Southern Refining Co., Ardis	2,000	Shut down	Shut down
Louisiana Oil Refining Corp., Shreveport, Bossier	20,000	16,000	16,000
Shrevepor. Producing & Refining Co., Shreveport	5,000	5,500	5,400
*The Texas Company, Shreveport	5,800	6,000	6,000
Total	43,300	34,000	33,900

*Topping.

WORK PROGRESSING RAPIDLY ON GAS TRUNK LINES FROM TEXAS PANHANDLE

By James H. Dameron

AMARILLO, Tex., July 11.—Construction work on two major gas trunk lines out of the Panhandle of Texas is progressing more rapidly than anticipated by officials of the two companies building the lines. The West Texas Gas Co. of Amarillo will probably finish a 217-mile line to Lubbock and Slaton, both in the South Plains area, a month ahead of the anticipated completion depth.

That line starts with 16-inch pipe in northeastern Potter County and runs south past Amarillo and follows the Santa Fe Railroad south to Canyon. From Canyon the line follows the railroad to Plainview and is divided there into two lines. A 10-inch line goes to Lubbock, almost due south. The other line is an 8-inch line running southeast to Lockney and a 6-inch line is extended on to Floydada. From Lubbock an 8-inch extension is being laid to Slaton to the southeast.

All dimensions of pipe above 10-inch is being laid with couplers and all of the line being built with 10-inch or smaller diameter pipe is being welded. The most modern equipment, such as ditcher, back fillers, tractors for lifting screw pipe into alignment, and compressed air machines are being used in the laying of the trunk line and laterals.

The schedule for the building of the line called for completion by December 1 but with the rapid progress being made gas is expected to be going through the mains by November 1. The city of Canyon is about half piped and the lateral from the trunk line to the city gate has been completed. At various towns along the right of way, pipe is being unloaded daily and construction is going along most satisfactorily. Thirteen cities and towns will be served by the line at present. The country through which the line travels is level with soil that has a minimum of corrosive properties in it. Good roads eliminate the transportation problem and trucks haul from 18 to 21 joints of 15-inch pipe along the right of way per trip.

In the section being built with 15-inch pipe 29 miles of pipe has been strung, 8 miles of the ditching is complete and 4 miles of pipe has been laid and lowered. Fifteen miles of 10-inch has been strung and 10 miles of that section has been ditched. More 10-inch has been laid than pipe in any of the other sections. Eight miles of that section has been ditched. Twenty-two miles of 8-inch pipe is strung, 10 miles ditched for that pipe and 6 miles of 8-inch has been laid. Ten miles of 6-inch is on the right of way and 6 miles of the line has been lowered.

Compressor station sites are being bought, but no stations will be erected at the present. Pressure at the wells will be used to send the gas through to the end of the system at present. Approximately 200 miles of street mains will be laid when all towns have been piped.

Wichita-Kansas City Line

The other project, and the longest of the several Panhandle gas lines, is the 400-mile Panhandle-Kansas City, Mo., 20-inch line being built by the Empire Gas & Fuel Co. Construction work of this large line is being carried on from three points, Pampa in the Panhandle, Woodward in northeastern Oklahoma and Wichita in south central Kansas. Present construction plans call for the completion of the line into Wichita, a distance of 250 miles, by January 1, 1928, and the line will be extended on to Kansas City when the demand develops. It is estimated the project will cost $15,000,000 and when completed the line will be capable of moving 97,000,000 feet of gas daily to Wichita.

J. D. Creveling, of the Henry L. Doherty & Co., made a recent study of the potential supply of the Panhandle gas area which covers the counties of Moore, Potter, Hutchinson, Carson, Gray and Wheeler. He is quoted as saying the field had a potential supply of 20 years and possibly 40 years with heavy drafts being made of the gas reserves yearly. Panhandle's gas wells are enormous in initial open flow capacity with one well capable of making 210,000,000 feet of sweet gas daily. The rock pressure of all wells averages around 430 to 450 pounds. An idea of the life of the wells may be gained from a seven-year-old Potter County well which came in for 107,000,000 feet of gas daily with 450 pounds rock pressure. After seven years of life the well is making 85,000,000 feet of gas daily. However, that well was one of the first in the Panhandle and only a part of its open flow capacity has been used daily. Its offsets are far apart and only a fraction of the gas is being used from those wells.

The Empire company will manage the Kansas City line and it will tie into the Empire company's Mid-Continent system centered at Wichita. When tied into that trunk system the Empire company will have a daily pipe line capacity of 150,000,000 feet of gas daily.

Panhandle-Denver Project

Satisfactory progress is being made on the Interstate Gas Pipe Line Co.'s Panhandle-Denver, Colo., line, the other large gas line project affecting the Panhandle. While actual construction work has not been started, it is reported the pipe for the line has been ordered from the mills. The line will be a 22-inch line and will be 250 miles long over rugged country. It is estimated the system will cost $25,000,000. Approximately 120 miles of pipe will be used in the Panhandle gathering system.

While officials are going ahead with plans for the construction of the line actual construction work will not be started until differences on phases of the franchise with the city of Denver are ironed out. According to present plans, the line will have a capacity of around 50,000,000 feet of gas daily when built and opened for service. As the load increases the capacity of the line can be built to 100,000,000 feet daily. The largest consumer will be the Colorado Fuel & Iron Co., whose smelter and mills at Pueblo will utilize 17,000,000 feet of gas daily.

The line will be built on a straight line to its terminal and will start from a point in northeastern Potter County and go northwest to Pueblo. From Pueblo the line will be reduced to a 20-inch trunk line and will run due north through Colorado Springs to Denver. Because of the rocky and rough country to be traversed by the line most of the ditching will have to be done by laborers instead of machinery. The country likewise will increase the transportation cost of material to the right of way.

Originally it was planned to extend the line into Trinidad, but to eliminate much hillclimbing the line was routed off to the east of Trinidad. However, Trinidad is in virgin territory for gas lines and it is expected that a lateral line will be built into that city.

The Interstate company has been chartered under the laws of Delaware and will transport gas from a point near Texline, on the Fort Worth and Denver Railroad and carry it to the gates of cities along the right of way and to the gates at Denver. The line from its point of beginning in northeastern Potter County to the New Mexico line will be built in the name of either the Prairie Oil & Gas Co.; Empire Gas & Fuel Co., or Humble Oil & Refining Co., all three of which have charters to do business in Texas as a domestic or foreign concern.

Officials of the interested companies made a recent tour of inspection of the Panhandle field.

ROXANA'S DEEP WELL HAS UNIQUE RECORD

(Continued from Page 34)

3,150 Blue shale.
3,171 Sandy shale.
3,183 Sand.
3,188 Blue shale.
3,224 Sand with streaks shale.
3,274 Shale with streaks sand.
3,318 Lime.
3,365 Blue shale.
3,370 Broken lime.
3,387 Sand and shale.
3,405 Sand.
3,445 Blue shale.
3,449 Sand.
3,496 Blue shale.
3,601 Lime hard.
3,625 Sand hard.
3,630 Red rock.
3,665 Sand.
3,701 Shale.
3,724 Lime.
3,730 Shale.
3,734 Red rock.
3,738 Sand and lime very hard.
3,743 Sand.
3,746 Blue shale and sand.
3,762 Sandy shale.
3,770 Sand.
3,785 Sandy shale.
3,792 Sand.
3,795 Shale.
3,802 Black shale.
3,816 Sand.
3,838 Shale.
3,954 Blue shale.
3,968 Sand.
4,034 Blue shale.
4,062 Blue shale with streaks of hard gray sand.
4,190 Shale blue.
4,200 Sandy shale.
4,201 Blue shale.
4,203 Sand water.
4,207 Shale with streaks sand.
4,355 Shale.
4,358 Slate, hole dry.
4,371 Shale dark.
4,377 Lime gray.
4,402 Shale.
4,420 Shale and shells.
4,458 Shale.
4,460 Shale and shells.
4,490 Shale.
4,495 Lime.
4,500 Slate.
4,520 Shale.
4,545 Sandy shale.
4,560 Gray sand.
4,565 Shale.
4,575 Slate.
4,580 Shale.
4,590 Slate.
4,606 Shale.
4,617 White sand.
4,620 Shale.
4,624 Slate.
4,680 Shale.
4,695 Sand, top sand 4,680.
4,748 Sand and shale.
4,764 Shale.
4,770 Shale, sandy and limy.
4,785 Broken sand and shale.
4,812 Sandy shale.
4,840 Sandy shale and lime.
4,844 Sandy shale, no water.
4,870 Shale.
4,883 Slate.
4,945 Shale.
4,957 Gray shale.
4,978 Shale.
5,006 Shale dark.
5,008 Slate dark.
5,009 Lime gray.
5,014 Slate dark.
5,025 Shale dark.
5,030 Slate.
5,036 Lime.
5,045 Shale.
5,065 Shale and shells.
5,135 Shale dark.
5,157 Slate dark.
5,170 Shale dark.
5,174 Coal.
5,180 Sand.
5,210 Sandy shale.
5,220 Gray lime.
5,227 Dark shale.
5,256 Lime.
5,260 Slate.
5,262 Shale.
5,288 Lime.
5,291 Slate.
5,293 Lime.
5,322 Sandy lime.
5,345 Lime.
5,350 Shale dark and lime shells.
5,360 Lime.
5,400 Shale dark.
5,405 Lime.
5,425 Dark shale.
5,435 Shale.
5,440 Sand hard.
5,480 Dark shale.
5,488 Lime.
5,494 Lime white hard.
5,515 Sandy lime.
5,531 Lime.
5,534 Black shale.
5,537 Lime.
5,542 Shale black.
5,580 Lime.
5,585 Sandy shale.
5,660 Black shale.
5,666 Gray shale.
5,694 Shale.
5,696 Lime.
5,703 Lime.
5,761 Gray shale.
5,775 Shale.
5,781 Lime white hard.
5,817 Lime.
5,826 Sandy lime.
5,832 Sand.
5,836 Sand, lime and green shale.
5,843 Sandy lime.
5,852 Sand.
5,874 Green shale.
5,891 Lime brown.
5,899 Lime and rounded sand grains.
5,909 Sand—OIL.
5,918 Fine hard sand.
5,922 Sand, little softer and coarser.
5,932 Sand hard.
5,934 Sand little softer.
5,985 Sand T. D.

Casing Record

15½	154
8¼	4,356
6⅝	5,034
5 3/16	5,764

SPANISH GOVERNMENT ANNOUNCES MONOPOLY

(Continued from Page 30)

extensive within the Kingdom of Spain, that it shall provide for the building of a fleet of tankers to handle the oil and also for the acquisition of foreign oil holdings. The concessionaries are also to provide for the utilization of alcohol produced in Spain, probably for the purpose of mixing with gasoline similar to the methods undertaken by the French Government for the purpose of absorbing excess alcohol incident to the French wine industry.

This royal decree bids fair to open up a diplomatic Pandora Box because there is silence in respect to what is to be done with the present holdings of American and other oil companies in Spain, except that it is made very clear that the Spanish Government does not propose to take over any of these oil holdings in whatever form they exist except to the extent that the proposed monopoly can find use for these holdings.

Effect on Foreign Concerns

Up to this time competitive selling of petroleum and its products in Spain has naturally resulted in some duplication of distribution plants. They will all be rendered useless after this monopoly becomes effective and will be worth no more than old junk unless the Spanish oil monopoly will agree to purchase them, and it distinctly declares that such facilities will only be acquired in cases in which they are needed. This same provision applies to both domestic and foreign oil companies, which makes the situation still more menacing to the foreign companies because of the feeling that, in taking over needed distributing facilities, the domestic companies will be preferred to the foreign.

Another interesting feature of this

monopoly is the fact that foreigners who have heretofore been supplying Spain with petroleum and its products are to be excluded entirely from participating in the monopoly.

So far as the ordinary observer can detect, this exclusion of foreigners from any participation is difficult to understand if it is proposed to actually create paid-up capital of over $21,000,000, because from the point of view of financiers in this country, it does not seem to be reasonable that such large capital could be obtained without going beyond the boundaries of Spain.

The royal decree makes no mention of any intention to have the oil monopoly of Spain purchase the existing stocks of oil, or the good will, of foreign companies operating there. On the other hand, Spanish companies are to be given an option of cash reimbursement or the acceptance of shares in the monopoly representing their property that may be taken over by the owners of this concession.

These are the provisions of the royal decree but, much more interesting, are facts that it is believed have been absolutely discovered bearing upon the practical method which this Spanish monopoly will employ in the operation of its business.

Plan of Operation

In other words, it is believed to be quite fully established that what is being done in Spain is to sovietize the Spanish oil industry at the suggestion of and in co-operation with the Soviet Russian oil industry.

During the last year reports have leaked out indicating that the Soviet Government has been very active in both France and Spain for the establishment of relations with those two governments by which agencies for the exclusive sale of Russian oil could be accomplished.

It is only by understanding this relationship that an insight can be had into the proposed operation of the Spanish oil monopoly, making it possible for such a monopoly to function with very little capital. The oil distributing facilities being taken over, foreign companies will have to proceed through the medium of their separate governments for reimbursement, which will be a matter for diplomacy to settle in its usual leisurely manner. In the meantime these facilities can be taken over and operated.

On the other hand, Soviet Russian oil can be made to flow into Spain under conditions which will allow for its payment after it has been sold and the proceeds covered into the treasury of the oil monopoly.

With an arrangement of this kind it does not seem that there will be any immediate use for anything like $21,000,000 paid-up capital.

Practically, this entire monopoly will be in the hands of Spanish citizens which, presumably, means Spanish politicians.

Cable advices have been received in this country showing that oil companies and business interests strongly opposed this royal decree for the establishment of a Spanish monopoly in oil. It is believed by many of these interests that this step for the establishment of an oil monopoly was taken without general consultation with the present petroleum and banking interests within Spain.

Well-informed persons in Spain even now refuse to consider this royal decree seriously as they do not believe its execution is practical and the opinion has been expressed there that no bidders will present themselves on September 1, and that the whole project will die a natural death for that reason. They express the belief that this royal decree is too unusual and impracticable for its execution unless it has been issued in view of some specially favored interest which has not been publicly expressed but of which evidence exists in the opinion of people in Spain who have been in close touch with Spanish affairs for a long time.

As stated in the foregoing, the special interest suspected in this case, and by some believed to be an absolute fact, is the Russian Soviet oil industry which has found in Spain an outlet for its products on a co-operative basis by which not only the Russian Government but the Spanish Government will profit as well as those citizens of Spain who will be favored, if this decree becomes effective, by being placed in control of the oil monopoly with its attendant profits.

Some idea of the importance of the Spanish market for petroleum and its products can be obtained from the recent statement by the Spanish National Council of Combustibles for the first quarter of the present year showing imports during that period of 37,929 metric tons of gasoline and 5,629 of kerosene, together with some trifling quantities of other products.

Official statistics indicate an increased importation of nearly all petroleum products into Spain during 1926. During this period American companies generally maintained their hold on the market. These companies have been well organized and have strong Spanish organizations. Companies operating in Spain are the Standard Oil Co. of New Jersey, the Atlantic Refining Co., the Vacuum Oil Co., the Sun Oil Co. and The Texas Company, together with companies of other countries, especially British companies.

Gasoline was imported into Spain during 1926 to the extent of 158,726 metric tons compared with 129,452 tons in 1925. American companies maintained their lead, supplying 85,925 tons as against 74,977 tons in the preceding year.

Great Britain supplied 24,528 tons, which showed a considerable falling off from its share of the 1925 importation, but this decline was offset by substantial increases of the gasoline imports from Egypt, which furnished 21,103 tons in 1926 compared with only 1,719 tons in 1925.

Gasoline imports into Spain from English possessions in Europe also increased about 100 per cent, but this gasoline generally was reshipped from Malta and English ports and was Russian in its origin, being a part of the 25,000 tons which the Porto Pi Co. is bringing into Spain from Russia under contract. Spanish customs statistics indicate imports direct from Russia amounting to 8,395 tons.

Kerosene imports into Spain showed a slight decline in 1926 of 15,512 tons from 17,198 tons in 1925. The greatest proportional decrease was in receipts from Great Britain which dropped approximately 65 per cent, from 3,133 tons to 1,182 tons. From the United States the imports declined about 20 per cent, from 12,743 tons in 1925 to 10,052 tons in 1926. The fact that Spain is experiencing a rapid spread of hydroelectric facilities and an increased use of electric power has greatly affected the market for kerosene. Imports of Diesel oil into Spain for 1926 showed a decline from 32,811 tons in the previous year to 30,612 tons. The United States furnished 60 per cent of these 1926 receipts. The greatest increase was shown in imports from Russia which amounted to 6,300 tons in 1926. These imports from Great Britain were not important.

Substantial increase in Spanish imports of American oil was experienced in the case of lubricants, the amount increasing from 18,587 tons in 1925 to 22,516 tons in 1926. This contribution was approximately 80 per cent of the total of Spanish imports of lubricating oil.

Heavy crudes imported into Spain in 1926 amounted to 8,440 tons, practically all of which came from the United States. Fuel oil imports declined more than 50 per cent during 1926, the total imports of that year amounting to 8,840 tons compared with 18,190 tons in 1925. From the United States the imports of this class showed a decline of from 9,344 tons in 1925 to 1,863 tons in 1926. This fuel oil, however, did not originate in the United States, as Mexico is the chief source of the Spanish fuel oil supply.

According to general belief, the statistics do not fully indicate the progress that has been made in gasoline distribution in Spain by the Porto Pi Co., which distributes petroleum products in that country from Russia. It is estimated that, while the American companies are selling approximately 101,000,000 liters a month in Spain and the Shell organization not more than 3,500,000 liters, the Porto Pi Co. has increased its sales to more than 5,000,000 liters monthly. Not only has this Russian company handled Russian oil but its market in Spain has been so encouraging that it has had to open negotiations with American oil producers because its source of supply in Russia has not been adequate. That company now seems to be handling about 3,500 tons of lubricants a year and has been making arrangements for handling approximately 30,000 tons of fuel oil.

From these figures it will be seen that Russian oil has been gradually supplanting American and other oils in the Spanish market.

CREATION OF FORUM IS RECOMMENDED

(Continued from Page 31)

which embraced in its membership and scope of activity men engaged in all branches of the industry, and many of our technical men associated themselves with various technical societies, some of which are not primarily interested in petroleum problems.

"It should be understood that the committee does not wish to minimize the importance of the fine and valuable work done by various technical societies and scientific bodies organized outside the petroleum industry which have had the active co-operation of petroleum technologists. However, these bodies do not cover the field completely, though they overlap in certain parts thereof, and they do not and cannot speak nor act with authority for the petroleum industry, and it is the judgment of this committee that the industry should itself provide machinery through which its technical men can speak and act. However, in presenting its recommendations, the committee does not have in mind that the various technical societies will necessarily disband their petroleum divisions or cease their activities. On the contrary, in some instances, your committee is convinced that the effective work of particular societies should be continued and supported. Included in the field work of certain existing technical societies are problems of pure science connected with petroleum, which the petroleum industry can best leave to these societies rather than attempt to handle for itself. Certain it is that the acid test of the work of any society or any organization is whether that work is of a constructive nature and worth its cost.

"In addition to the basic sciences such as chemistry and physics, the subjects having technical features in which the petroleum industry is interested may be broadly classified as follows:

1. Petroleum Geology

"The title of this subject is descriptive of the matters which would be considered under it. It is a very definite subdivision in the broad field of petroleum technology.

2. Production Engineering

"Under this subject heading would come technical problems connected with drilling for oil or gas; well equipment; pumping methods; and all handling of the crude oil until it is delivered into lease tanks, or gas until it is delivered into transportation lines.

3. Transportation Engineering

"Under this subject would come such matters as pipe line transportation of crude oil or gas; field storage of crude oil; all technical problems in connection with the handling of crude oil or gas from the time it reaches the surface until it is delivered in the case of oil to refineries, or in the case of gas to consumer. Included under this heading would be tank car and tank steamer transportation of oil.

"In order to avoid duplication of consideration of such problems where products of petroleum are similarly handled, such activities would all be considered under this subject, and would include all forms of transportation by railroad.

4. Refinery Technology

"This subject has a wide scope, comprising technical matters under mechanical, civil and chemical engineering, and problems of applied physics and chemistry. Included in these would be problems of distilling, fractionating, treating and cracking of petroleum and derivatives; and the adaptation of mechanical equipment such as boilers, pumps and other machinery to meet the particular requirements of refiners. Due to the fact that the methods followed are practically the same, the recovery of gasoline by absorption and compression methods, either in refineries or in plants deriving their raw materials from oil and gas wells, would come under this subject grouping. It would also concern itself with corrosion, evaporation and storage problems, in which it would be associated with the divisions of production, transportation and distribution engineering. Under applied physics and chemistry would come the practical application of the principles of physics and chemistry to refinery problems.

5. Distribution Engineering

"Under this subject heading may be considered technical matters and problems connected with the storage and handling of marketable petroleum products after these products have reached the zone of utilization. This would include consideration of warehouse and distributing station design and construction; storage problems; mechanical problems connected with various types of mechanical equipment used in distribution, such as tank trucks and wagons, service station pumps, and other distributing devices.

"The committee has found that in the absence of any organized effort on the part of the oil industry to provide a complete and proper forum for presentation and discussion of matters under the subjects listed above, various of the present existing technical societies have, to some degree, attempted to provide a series of such forums, but such presentations and discussions as have been held have not been generally available to the petroleum industry and could not be made available without large extra expense, both to the individuals and to the industry as a whole. With many technical societies, each attempting to provide for discussion of matters of petroleum technology, there has been a duplication of effort and expense, and, further, such meetings outside of the industry have not been and probably will not be able to command the attendance of many leading petroleum technologists for presentation and discussion of technical papers. Furthermore, in spite of this duplication, there remain certain important subjects for which there is no suitable forum.

Should Provide Forum

"This committee is therefore of the opinion that a forum for the presentation and discussion of technical matters connected with petroleum and natural gas should be provided by the industry itself. This organization within the institute would have as its particular responsibility toward all members of the institute that portion of the charter and by-laws of the institute which states: 'To promote the mutual improvement of its members and the study of the arts and sciences connected with the petroleum industry.'

"In the opinion of your committee, the organization of this forum at the present time should be such that it can properly handle technical subjects pertaining to petroleum and natural gas for which there is an immediate need and should be so conceived and arranged that it can be expanded as additional needs arise.

"In cases where technical matters have been and continue to be satisfactorily handled by present existing societies, your committee recommends that these other societies be aided and encouraged in their particular field of work for the petroleum industry and that full co-operation be given them.

"Illustrative of work being handled satisfactorily for the petroleum industry can be mentioned that of the American Association of Petroleum Geologists, and that of the Committee D-2 of the American Society for Testing Materials. In the one case, a whole subject division of petroleum technology is covered, while the other includes the detail of development of petroleum testing methods, with the co-operation of many consumer representatives. Other examples of the same nature could be cited.

"In the broad field of petroleum technology we find that the subjects of production engineering, refinery technology, transportation engineering and distribu-

tion engineering are not at the present time adequately covered by an existing society, and of these subjects production engineering and refinery technology require the prompt provision of facilities by the petroleum industry itself. As to subjects of transportation and distribution engineering, there is also a lack of present facilities, but the demand for them does not yet appear to be urgent.

"Your committee is of the opinion that the type of organization required for providing facilities for handling of the subject subdivisions of petroleum technology is one planned in a comprehensive way which would care for such subjects as should be handled immediately and be capable of expansion under its general scheme of organization, and without basic changes, to handle additional subjects pertaining to the petroleum and natural gas industries as the demand arises.

Recommend Organization

"For this purpose we recommend the immediate formation of an organization within the American Petroleum Institute which shall presently include:

A Division of Refinery Technology.

A Division of Production Engineering.

"The committee recommends that for each division now or hereafter organized the plan of organization be substantially as follows:

"The membership of each division should include such members of the American Petroleum Institute who are actively engaged or interested in the subject to be handled by the division and who have paid dues for membership in the division as required by the board of directors of the American Petroleum Institute. The dues for each technical division shall not exceed $2.50 per annum.

"The officers of each division should be a chairman and vice chairman elected by its members. Each division should have a salaried executive secretary appointed by an active executive officer of the American Petroleum Institute. Each executive secretary should also be a member of the American Petroleum Institute administration staff.

"The chairman, vice chairman and executive secretary, together with regional group chairmen as hereinafter defined, should constitute a general committee for each division.

"Geographical sections of each division may be organized by its members subject to approval by its general committee. The elected chairman of each section should be a member of the general committee of the division.

Co-ordinating Committee

"Provision should be made for a technical co-ordinating committee to handle jurisdictional questions, including the allocation of border line subjects and papers in the various divisions, to arrange the outlines of the technical programs at meetings, and to arrange co-operation with other technical organizations in the presentation and discussion of technical papers. This committee should be composed of the chairman, vice chairman and executive secretary of each subject division and an active executive officer of the Institute and three additional members of the A. P. I. appointed by the president.

"For each division there should be a committee of five on papers, to be composed of four of its members appointed by the chairman, and the executive secretary, which committee should pass on all papers before their presentation or publication.

"There should be a technical journal established by the American Petroleum Institute to be published at regular intervals in which should appear all technical papers and edited discussions accepted and authorized by the divisional committees on papers, and other appropriate reports and articles, including translations of all important foreign papers. This journal should be furnished to all American Petroleum Institute members and made available by subscription to any interested party. The committee regards the creation of such a medium of publication as essential and of paramount importance.

"No member should be eligible for election as chairman or vice chairman of a division or any of its geographical sections unless he be actively engaged in the petroleum industry in that particular subject.

"For the preliminary organization for each division it is recommended that a nominating committee for each division be appointed to select nominees for chairman and vice chairman, and that facilities be provided for the enrollment of members of the American Petroleum Institute as members of the respective divisions, and these members should be called to meet during the next annual meeting of the American Petroleum Institute, at which meeting the report of the nominating committee should be submitted.

"After the permanent organization of each division has been first effected it should prepare rules of procedure for its own activities and for future election of its officers, which rules should be submitted to the technical co-ordinating committee for approval and should be finally approved by the board of directors of the American Petroleum Institute, whereupon they should become effective.

"It is further recommended that each divisional general committee and the technical co-ordinating committee be encouraged to make recommendations freely to the board of directors or its active executive officers and that each division make a report of its activities periodically to the board."

PANHANDLE FIELDS

(Continued from Page 40)

a small show of gas at 3,290 feet. Between the Pampa Pool and the Gulf Production Co.'s extension to that pool, Prairie Oil & Gas Co.'s No. 1 Worley & Reynolds, Section 57, Block 3, I. & G. N. Survey, is swabbing 150 bbls. from granite wash at 3,292-3,300 feet. In the Pampa Pool Pure Oil Co.'s No. 6 H. M. Davis, Section 86, Block 3, I. & G. N. Survey, averaged 200 bbls. daily for a week through 8¼-inch pipe from the pay at 3,012-79 feet. Two miles northwest of the Pampa Pool, but in territory found productive some time ago The Texas Company's No. 1 J. B. Barrett, Section 130, Block 3, I. & G. N. Survey, swabbed 263 bbls. the first 24 hours from granite wash at 3,145-60 feet.

Hutchinson County

Coble Development Co.'s No. 1 T. D. Lewis, Section 6, Block 23, B. S. & F. Survey, had an initial production of 5 bbls. in lime at 2,940 to 3,076 feet. Delmar Oil Co.'s No. 4 Johnson Brothers, Section 20, Block Y, M. & C. Survey, was shot with 80 quarts at 2,735-55 feet and is making 10,000,000 feet of gas and no oil. Dixon Creek Oil Co.'s No. 1 H. E. Smith, Section 7, Block Y, M. & C. Survey, did 80 bbls. initial from lime at 3,015-44 feet. Goldelline Oil Co.'s No. 4 J. A. Whittenburg, Section 27, Block 47, H. & T. C. Survey, north of the river, was shot with 110 quarts in lime at 2,865 to 2,910 feet and is making 110 bbls. daily. Minnehoma Oil Co. & Kistler's No. 5 Johnson Brothers, Section 20, Block Y, M. & C. Survey, had an initial production of 40 bbls. after a 60-quart shot in lime at 2,989 to 3,035 feet.

McIlroy and associates' No. 1 Ellis Cockrell, Section 4, Block B-3, D. & S. E. Survey, did 1,440 bbls., 3 per cent water, from lime pay at 2,975 to 3,030 feet. McMan Oil & Gas Co.'s No. 2 Ellis Cockrell (Martin) Section 3, Block B-3, D. & S. E. Survey, was shot with 40 quarts in lime at 3,008-23 feet and made 150 bbls. initial. Midwest Exploration Co.'s No. 6 Johnson Brothers, Section 70, Block 46, H. & T. C. Survey, is swabbing 65 bbls. daily after a 60-quart shot at 2,855-78 feet; total depth 2,882 feet. Peterson and associates' No. 1 Johnson Brothers, Section 22, Block Y, A. & B. Survey, made 5 bbls. initial from lime pay at 2,906-97 feet.

Phillips Petroleum Co.'s No. 2 W. L. Kingsland (Gibson) Section 4, Block Y, M. & C. Survey, was junked at 2,851 feet and the derrick skidded 50 feet south. Phillips company's No. 15 J. A. Whittenburg (Elra), Section 3, E. Tomlinson Survey, responded to a 180-quart-shot in lime at 2,785 to 2,848 feet with 100 bbls. initial. Phillips Petroleum Co. and Coble's No. 30 J. A. Whittenburg, Section 13, Block Y, M. & C. Survey, was shot with 80 quarts at 2,943-70 feet and made 400 bbls. initial. The well was good for 225 bbls. before the shot. Phillips company's No. 4 Johnson Brothers (Dorsett), Section 64, Block 46, H. & T. C. Survey, was good for 150 bbls. natural but was shot with 140 quarts at 2,660 to 2,710 feet and is now making 500 bbls. Same company's No. 2 Johnson Brothers (Walling), Tract 6, M. Whitley Survey, was shot with 130 quarts at 2,958 to 3,004 feet and is pumping 75 bbls. Phillips company's No. 1 J. M. Sanford (McMillan) Section 82, Block 46, H. & T. C. Survey, is a 60,000,000-foot gas well at 2,687 to 2,750 feet. Phillips company's No. 16 J. A. Whittenburg (Patton), M. Whitley Survey, is a 75-bbl. pumper after a 90-quart shot at 2,888 to 2,920 feet.

Prairie Oil & Gas Co. and associates' No. 58-A Johnson Brothers, Section 20, Block Y, M. & C. Survey, made 20 bbls. initial from pay at 3,013-47 feet. Same operators' No. 64 in Section 74, Block 46, H. & T. C. Survey, made 110 bbls. initial from 2,855 to 2,949 feet. Prairie company and associates' No. 68-A Johnson Brothers, Section 28, Block Y, A. & B. Survey was shot in lime at 2,790 to 2,890 to 2,951 feet. Red Hill Petroleum Co.'s No. 1 Johnson Brothers, Section 22, Block Y, A. & B. Survey, was shot in lime at 2,930-85 feet and made 60 bbls. initial. Red Hill's No. 1 Johnson Brothers (Brookins) Section 22, Block Y, A. & B. Survey was shot in lime at 2,790 to 2,874 feet with 330 quarts and made 30 bbls. initial. Skelly Oil Co.'s No. 3 J. A. Whittenburg, an old gas well, was deepened to 2,925-45 feet and shot with 50 quarts to make a 30-bbl. well. The Texas Company's No. 1 Ellis Cockrell, Section 1, Block Y, M. & C. Survey, was shot with 300 quarts at 2,907-64 feet and is making 30 bbls.

Wheeler County

Three wells were completed in the Shamrock Pool of Wheeler County. Continental Oil Co.'s No. 3 J. H. Jackson, Section 109, Block 23, H. & G. N. Survey, pumped 60 bbls. from granite wash at 2,245-75 feet. Gibson Oil Co.'s No. 4 W. E. Bentley, Section 42, Block 24, H. & G. N. Survey, flowed 300 bbls. initial from 2,342-60 feet. The well made 8,000,000 feet of gas at 2,310-20 feet. Tidal Oil Co.'s No. 1 W. E. Bentley, Section 42, Block 24, H. & G. N. Survey, swabbed 265 bbls. the first 24 hours from lime and granite wash at 2,299 to 2,330 feet.

COMPROMISE ENDS SERIOUS SITUATION

(Continued from Page 132)

present also receive one and one-half pay for overtime work and double pay on Sundays. The station attendants asked for a raise in pay of $10 from $140 to $150 per month. The number of men affected is estimated at between 1,500 and 1,800. The territory included in the Chicago district extending from Hammond and Gary on the south to Highland Park on the north a distance of approximately 75 miles and westward to the suburban communities of LaGrange, Hinsdale and many others or approximately 20 miles.

The demand of the union was rejected by representatives of the oil companies doing business in the Chicago district and the unions were asked to withdraw their demand, it being pointed out that the present was a bad time for the oil companies and that they could not afford to increase the costs of doing business. Negotiations were continued and it is stated by the oil companies that there had been no definite date set for a final showdown. At first the unions insisted on the definite agreement by July 1 but decided to wait, the union chiefs claim at the request of the oil companies, until after the Fourth of July holiday was over.

On Friday morning the stations owned by the Sinclair Refining Co. were closed by the walkout of the attendants. The oil companies immediately held a meeting at the Stevens Hotel and it was agreed to close all service stations owned or controlled by the companies and to call in the tank wagon from the street. This latter step it was explained was in the nature of a precaution. When word of this action reached the garage men there was a rush for gasoline supplies and in some instances as much as 4 and 5 cents above the regular cost to the station or garage was paid for a load. Motorists also rushed to fill their tanks. At some of the sources of supply still available such as the garages a rule was made to sell to regular customers only and to no one in more than five gallon fills.

In the meantime the representatives of the oil companies and the union were in conference. A more conciliatory attitude was taken by the parties and it was rather quickly agreed to grant the drivers a raise of $5 a month instead of the $15 originally asked for and tentatively to make the same increase in the pay of the station attendants. The final stumbling block was the demand for a week's vacation with pay for the drivers. The representatives assembled again at 10 o'clock on Saturday morning with the final agreement in sight. At that time the companies obtained a two year agreement with all demands for vacations with pay dropped. Also beginners as station attendants are paid a sliding scale for three months beginning with a rate of $120 a month and increased gradually to the new rate of $144 the fourth month. Drivers are now to receive $182.50.

The present salary scale is considerably above that paid in the surrounding territory. This is explained as being due to the higher living costs in Chicago.

A. S. T. M. METHODS IN PETROLEUM TESTS

(Continued from Page 134)

ard methods developed by Committee D-2 in one volume with the 1927 report of the committee. This proposal is meeting with enthusiastic support, a preliminary survey at the French Lick meeting indicating immediate orders for about 1,000 copies.

"The question of incorporating other A. S. T. M. methods of interest to D-2 members was referred to the advisory subcommittee with authority to act.

"It has been suggested that the value of this publication might also be increased by incorporating in it the membership list of Committee D-2 and its various subcommittees, although no action has been taken on this point. Your opinion on this will be appreciated.

"Estimates of the cost have been made by Mr. Warlick on the basis of an order for 1,000 copies as follows: Single copy, $1; lots 10 to 100, 75 cents; over 100, 65 cents.

"It is important that you place your order at once in order that your needs may be supplied. These orders will be submitted for printing on July 18 and will be filled as soon thereafter as the books can be printed."

It will be the first complete summary of petroleum test methods ever published by the A. S. T. M. separate from the regular reports, and because it will include all tests on all products it will probably replace the government bulletins in time. As the Government does not purchase certain important oils, no specifications or methods of test are outlined in its publications for them and heretofore the various oil companies and jobbers have had to come to some understanding of the test methods before purchases of these oils could be intelligently made. By giving the new book a wide circulation refiners and jobbers will be greatly benefited and is a step in the program of standardization in the industry.

DEATH OF CHARLOTTE MARLAND

PONCA CITY, Okla., July 12.—Miss Charlotte Marland, sister of Ernest W. Marland, president of the Marland Oil Co., died Monday of pneumonia. Miss Marland was 58 years of age. She was active in civic and charitable work, devoting much of her time in the interest of the Ponca City Hospital Guild and the Charlotte Marland Fund for charity work in the Ponca City Hospital. The funeral was held today from the Protestant Episcopal Church.

M'ILROY POOL IS BIG FACTOR IN MAINTAINING PANHANDLE OUTPUT

By James H. Dameron

AMARILLO, Tex., July 10.—More than any other one area in the Panhandle, the McIlroy Pool in southeastern Hutchinson County is preventing a more rapid slide in the decline of Panhandle production. And the bulk of the strength from that pool comes from a single well which broke all records of Panhandle producers.

The yield of the pool, however, fell far below the expectations of most operators when several other wells were drilled in it and were completed for a few hundred barrels at best and some were good only for a few barrels. However, bigger things of the pool are expected when wells to the south of the gusher are drilled. Most operators are inclined to believe the pool will be "spotted" and liken it to the character of several Panhandle sectors.

Discovery of the pool proper was late in February when McIlroy Oil Co.'s No. 1 Ellis Cockrell, NE cor. of the north 80 acres of Section 4 D. & S. E. Survey, came in for 25 bbls. at 2,976 to 3,055 feet. The well was producing from lime and was shot with 210 quarts and responded making 1,080 bbls. the first 24 hours.

The big excitement in that area followed when the Cockrell-McIlroy Oil Co.'s gusher came in a couple of months later. That well is No. 1 Ellis Cockrell, SE cor. of the south 35 acres of Section 1, D. & S. E. Survey. It had the pay in soft lime at 2,850-51 feet and started off making 105 bbls. per hour with 25,000,000 feet of gas. The well continued to increase in production until it was making 500 bbls. per hour. It is now more than two months old and still doing better than 10,000 bbls. daily.

Flowing Wide Open

It came in just at the time when the Panhandle was facing a crisis as the result of congested pipe line conditions. Operators at the time were being urged to curtail production as pipe lines were taxed to capacity. The McIlroy interests, controlling the property, built two 55,000-bbl. storage tanks and started filling those tanks. Two large crude contracts had recently been made by those interests and when storage was erected the well was opened up after having been pinched in several days, and permitted to produce its maximum. It has since been flowing wide open and its roar can be heard for a great distance in the Panhandle above the din of other field operations. It is flowing through two standard separators and one large one, into a battery of 5,000-bbl. tanks.

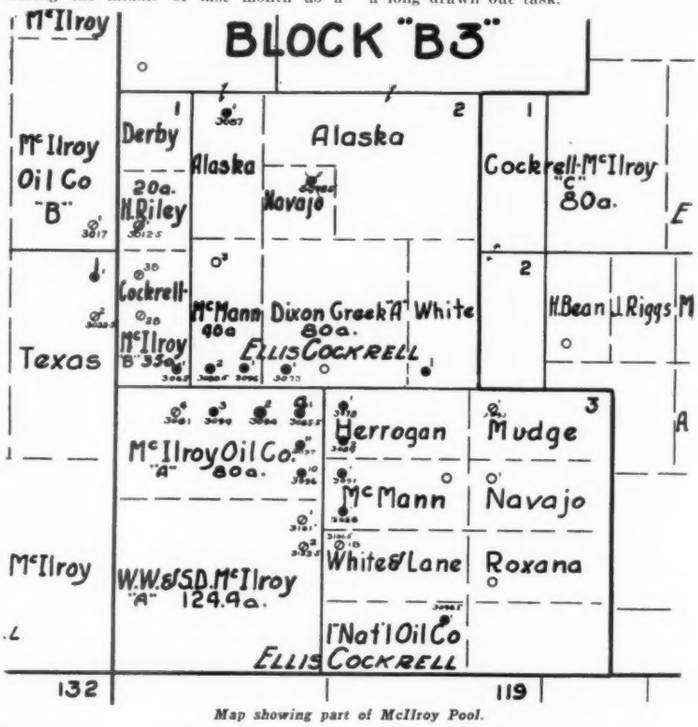
Only one other well in the pool has so far rivaled the record of the big gusher and in the opinion of Earl Calloway of the McIlroy interests, that well may equal or better the record of the gusher. It is McIlroy Oil Co.'s No. 2 Ellis Cockrell and offsets the discovery well. No. 2 had the pay in soft lime at 2,922-25 feet and started off making 450 bbls. per hour with 25,000,000 feet of gas. The well has not been completed and part of a string of tools are being fished from the hole. Its best record was made one day before the well caught fire. On that day it started off making 630 bbls. per hour after being shut in for a while. It, too, was prevented from being permitted to flow wide open until pipe line connections could be made to handle the production.

The well caught fire and burned two days before the fire was shot out. The tools were hanging in the hole when the well ignited and were dropped to the bottom when the cable melted. All but the bit has been fished out and when the hole is cleaned the well will be opened wide. At present it is pinched in to around 2,000 bbls. daily. Several times while the fishing job was in progress the well has been opened and it shot oil above the crown block and drenched the countryside.

Offsets to East Small

The other side of the picture is not so rosy though. Offsetting the discovery well to the east the Herrogan Oil Co. has drilled two wells and neither was completed as a big producer. Both were shot and No. 1 made 360 bbls. initial and No. 2 had an initial production of 200 bbls. Best of the offset wells completed in the gusher area is McMan Oil & Gas Co.'s Nos. 1 and 2 Ellis Cockrell. No. 1 was the direct offset to the Cockrell-McIlroy gusher. It was shot with 270 quarts and made 1,440 bbls. No. 2, a north offset to the McIlroy Oil Co.'s big well, was shot with 360 quarts and had an initial production of 600 bbls.

In the 20 acres to the north of the Cockrell-McIlroy big well H. Riley's No. 1 Ellis Cockrell was good for only 20 bbls. after a heavy shot. About a quarter of a mile northwest of the big well The Texas Company's No. 1 was good for only 30 bbls. after a heavy shot. Between the two big wells McIlroy Oil Co.'s No. 3 Ellis Cockrell checked low and was completed as a 40-bbl. well after a 270-quart shot. But two locations south of the discovery well No. 10 Ellis Cockrell on the McIlroy Oil Co.'s lease, found a better lime condition and was completed during the middle of last month as a 1,250-bbl. well. But neither the direct offset nor the southeast offset were as good wells. The east offset was good for 800 bbls. initial, 25 per cent water, and the southeast offset made 150 bbls. initial. Both had to be shot.



Map showing part of McIlroy Pool.

Southeast Extension

The southeast extension of the pool, First National Oil Co.'s No. 1 Ellis Cockrell in Section 3 and approximately half a mile southeast of the discovery well, showed for a good well at 2,988-93 feet. It started off at the rate of 125 bbls. per hour for the first three hours and then started flowing. After flowing a few hours the hole bridged and the well's production was down to 15 bbls. per hour. It is still making oil and showing water and has not been completed.

During the past week McIlroy Oil Co.'s No. 11 Ellis Cockrell in Section 4 had the pay at 2,983-3,015 feet and made 100 bbls. initial. That well is being cleaned out and will be shot. The south offset to the well made 1,250 bbls. initial and is showing water.

On the W. W. and S. D. McIlroy Cockrell lease in Section 4 where big wells are expected, No. 1 in the NE cor. of the lease topped the pay in lime at 2,975 feet and was bottomed at 3,030 feet. The well is making 48,000,000 feet of gas and started off making 1,350 bbls. of oil and 30 per cent of the fluid was water. However, the water continued to decrease and at the end of the third day the well was making only 14 per cent water. The well was completed a few days ago as a 1,440-bbl. well and making only 3 per cent water.

The south offset to that well is being watched closely. It is checking high and is making around 72,000,000 feet of gas, the biggest volume of gas so far discovered in any of the wells drilled in the pool. An effort is being made to mud off the gas, set casing and finish the well. The gas was killed twice but broke in each time. One of the rare freak happenings of the Panhandle was recorded at the well. It found a pocket of water with the gas which was exhausted after the well had blown a short while. A few other wells in the Panhandle have encountered a pocket of water above the pay which soon exhausted itself.

That well and the McIlroy Oil Co.'s No. 2 Cockrell in Section 4 are the most closely watched in the pool and are expected to be completed as big producers. Completion time, however, is problematical. The killing of the gas in one well is proving difficult and the cleaning up of the fishing job in the other has proven a long drawn out task.

It is significant to note that the two big wells in the pool are free of water while in most of the other wells water is showing. Both of the big wells were drilled without any mud in the hole to eliminate the possibility of the producing horizon being sealed.

The following is the well records of completions in the pool to date:

Alaska Oil Co.'s No. 1 E. Cockrell; sand at 2,928-3,045 feet; shot with 210 quarts; 150 bbls.; completed September 18, 1926; 10,000,000 feet gas and 25 bbls. oil before shot.

Cockrell-McIlroy's No. 1 E. Cockrell; sand at 2,850-51 feet; no shot; 500 bbls. per hour; completed April 23, 1927.

Dixon Creek's No. 1 E. Cockrell; sand at 2,930-3,012 feet; shot with 380 quarts; 360 bbls.; completed April 30.

First National Oil Co.'s No. 1 E. Cockrell; sand at 2,988-2,993 feet; no shot; not complete; (started off 125 bbls. first three hours, bridged, water showing.)

Herrogan Oil Co.'s No. 1 E. Cockrell; sand at 2,920-3,020 feet; shot with 500 quarts; 360 bbls.; completed June 4; 150 bbls. before shot.

Herrogan Oil Co.'s No. 2 E. Cockrell; sand at 2,965-3,059 feet; shot with 380 quarts; 200 bbls.; completed June 11.

McIlroy Oil Co.'s No. 1 E. Cockrell; sand at 2,976-3,055 feet; shot with 210 quarts; 1,080 bbls.; completed February 21; 25 bbls. before shot.

McIlroy Oil Co.'s No. 2 E. Cockrell; sand at 2,922-2,925 feet; no shot; 630 bbls. per hour; completed May 2; started off 450 bbls. per hour.

McIlroy Oil Co.'s No. 3 E. Cockrell; sand at 2,900-3,037 feet; shot with 270 quarts; 40 bbls., 1 per cent water; completed June 25; 25 bbls. before shot.

McIlroy Oil Co.'s No. 10 E. Cockrell; sand at 2,960-3,050 feet; no shot; 1,250 bbls.; completed June 11.

W. W. and S. D. McIlroy's No. 1 E. Cockrell; sand at 2,975-3,030 feet; no shot; 1,440 bbls.; completed July 2; 3 per cent water.

McMan Oil & Gas Co.'s No. 1 E. Cockrell-M; sand at 2,958-3,030 feet; shot with 270 quarts; 60 bbls. per hour; completed April 23.

McMan Oil & Gas Co.'s No. 2 E. Cockrell-M; sand at 2,938-3,032 feet; shot with 360 quarts; 600 bbls.; completed May 14; 10 bbls. per hour before shot.

McMan Oil & Gas Co.'s No. 1 E. Cockrell; sand at 2,970-3,037 feet; shot with 310 quarts; 800 bbls.; completed June 25; 25 per cent water.

McMan Oil & Gas Co.'s No. 2 E. Cockrell; sand at 3,008-23 feet; shot with 40 quarts; 150 bbls.; completed July 2.

Navajo Oil Co.'s No. 1 E. Cockrell; sand at 2,920-3,064 feet; no shot; 20 bbls.; completed June 25.

Mudge Oil Co.'s No. 2 E. Cockrell; sand at 2,995-3,060 feet; shot with 60 and 90 quarts; 10 bbls.; completed June 11; 10 bbls. before shot.

H. Riley's No. 1 E. Cockrell; sand at 2,900-2,988 feet; shot with 620 quarts; 20 bbls.; completed June 11.

The Texas Company's No. 1 E. Cockrell; sand at 2,907-2,964 feet; shot with 300 quarts; 30 bbls.; completed July 6.

White & Lane's No. 1 E. Cockrell; sand at 2,973-3,035 feet; shot with 240 quarts; 150 bbls.; completed June 4; 75 bbls. before shot.

SEMINOLE OPERATORS MEET

A closed meeting of the companies and individuals having interests in the Seminole area of Oklahoma was held at Tulsa Tuesday of this week. The meeting was well attended, and although no formal statement was issued at its close, it was rumored that the majority of those present declared themselves to be in favor of starting new wells only where lease obligations required.

Among matters purported to have been discussed was the coming meeting of the Seminole operators with the officials of the Oklahoma Corporation Commission, which will be held at Ok'ahoma City on July 21; and it was rumored that several of the oil operators proposed plans for the action of the Corporation Commission which they stated would be equitable to all concerned.

CARSON COUNTY GAS SALE

AMARILLO, Tex., July 9. — R. R. Osborne, Amarillo geologist and producer, sold a 580-acre lease in proven gas territory, north of Kings Mill in Carson County, to the Gibson Oil Co. for a reported price of $50,000. The property had one gas well on it with an open flow capacity of 51,000,000 feet of gas daily. The Gibson company supplies gas to White Deer and is furnishing much gas for drilling operations in Carson and Gray Counties. The leases purchased were the southeast quarter of Section 65, on which the well is located; the northwest of Section 45; the northeast and northwest of Section 44; the north half of the northwest of Section 46 and the south half of the northeast of Section 46.

MOVING OFFICES

The Chicago Pneumatic Tool Co., 6 East Forty-fourth Street, New York, announces the removal of its St. Louis office, service department and warehouse on July 1 from 813 Hempstead Street to 1931 Washington Avenue, St. Louis.

Gasoline Increase Becomes General On Western Coast

LOS ANGELES, Calif., July 9.—The gasoline increase announced by the Standard Oil Co. of California as effective July 1, has been followed by the other marketing companies including the smaller independents. In fact, local marketing conditions seem to be clearing up with the outlook for present prices holding during the summer months. During the past week, the smaller refiners met to determine the price at which they would sell so-called "bootleg gasoline." It is reported that the meeting was successful and that the price to be charged at service stations would be 6 gallons for $1.05. This is at the rate of practically 18 cents a gallon including tax, which is less than 2 cents under the price charged by the large companies. This is the smallest differential between standard grades of gasoline and "bootleg gasoline" that has been in effect for some time.

The increase from 2 to 3 cents in the tax on gasoline in the state of California is to go into effect on July 29. It is generally believed that at that time gasoline prices will be increased to take care of the 1-cent tax. The action on the part of the smaller refiners in establishing a uniform price for "bootleg gasoline," this price being rather close to that charged by the larger companies, strengthens the probability that the extra 1-cent tax will be passed on to the motoring public and not absorbed by the oil companies. There has been a movement started in San Francisco to halt the tax increase but no results have yet been achieved and the tax is expected to go into effect as scheduled.

Exports from Los Angeles Harbor to the Atlantic Seaboard mounted to 632,800 bbls. This is an increase of over 200,000 bbls. as compared with the preceding week. These shipments are expected to hold up quite well from now on due in part to the recent decrease in prices for tank bottoms. Fuel oil shipments have been quite heavy of late which has improved the fuel oil situation on the coast.

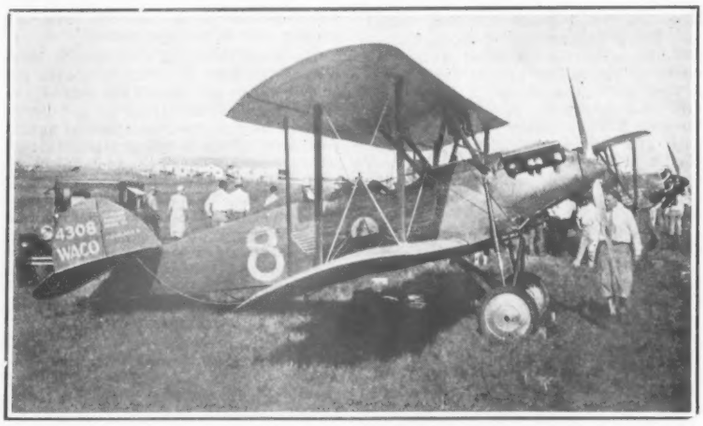
Pan American Petroleum Co. has just been awarded the contract for supplying the Navy with fuel oil to be delivered at San Pedro during the fiscal year 1927-28. The contract calls for 4,000,000 bbls. at 64½ cents per barrel at the dock and 66½ cents at bunkers inside the harbor, with the option of the navy to take additional 1,000,000 bbls. at the same price if desired. By this contract, the Navy is saving from 10 to 15 per cent on its cost of fuel oil over what was paid during the previous year. This contract enables the Pan American Petroleum Co. to sell a large volume of its fuel oil during the next 12 months, and the relief enjoyed due to moving this oil by this company is expected to have a helpful effect on the fuel market. Some of the smaller independent refiners who have no deep water outlets are selling in tank cars, in some cases as low as 65 cents per barrel. The volume of this business is very small, however, and such prices are considerably lower than those quoted by the large companies. Kerosene prices continue to hold steady in spite of the recent cut by the Standard Oil Co. of New York in the Shanghai market. Present indications are that kerosene prices will not weaken during the coming weeks.

PLANES USE STRAIGHT NATURAL GASOLINE

(Continued from Page 134)

product from its Glenn Pool plant. Its price will be higher than natural gasoline, as could be expected because of its lower yield per 1,000 feet of gas. It will be comparable to the fighting grade of United States aviation gasoline in quality and will take a price near the latter's market value.

Although it will take a higher price than ordinary gasoline, it has the advantage of being lighter in weight and is said to give greater mileage. Another factor in its favor is its high antiknock value, and as the newer airplane motors are of the higher compression type, a fuel is required which has high antiknock value.



Airplanes taking part in the National Air Tour which were fueled with superstabilized natural gasoline at Tulsa.

NORTH AND WEST TEXAS

(Continued from Page 39)

made 286 bbls. initially from 1,404-08 feet.

Montague County

Beckner and Pace's No. 1 Prescott was dry and abandoned at 1,001 feet.

Wichita County

H. Hammon and associates' No. 9 McCarty is a 5-bbl. well at 519-27 feet. Same operators' No. 10 McCarty is a 10-bbl. well in sand at 1,322-41 feet and 1,348-66 feet. L. P. Hammond and associates' No. 1 Munger made 55 bbls. initially from 1,759-60 feet. F. F. Hunter's No. 2-B Waggoner was dry and abandoned at 1,623 feet. Lanning and associates' No. 6 McCarty, Lease 1, was dry and abandoned at 600 feet. No. 7, on the same lease, was good for 15 bbls. initially at 1,321-39 feet. Lanning and associates' No. 1 McCarty, Lease 2, made 25 bbls. initially from 1,335-47 feet, and No. 2 did 40 bbls. initially at 1,323-65 feet. Sanford and associates' No. 1 Hamilton was dry and abandoned at 2,002 feet.

Wise County

Little company's No. 1 Houston was dry and abandoned at 2,442 feet.

Wilbarger County

Kelleher and Rubsam's No. 1 Ancell was dry and abandoned at 2,001 feet. Waggoner Refining Co.'s No. 1-B Waggoner had an initial production of 118 bbls. from lime at 2,356-75 feet; total depth 2,469 feet.

Young County

Ginsberg and associates' No. 2 Keen was dry and abandoned at 901 feet. Madden & Hunt's No. 3 Perkins was dry and abandoned at 807 feet. Monroe Producing Co.'s No. 1 Chambers was dry and abandoned at 2,803 feet. Ramsey and associates' No. 2 Payne was shot with 30 quarts at 2,090-2,120 feet and made 35 bbls. initially.

WEST TEXAS
Daily Average Production for Week Ending July 9, 1927

Crane County

Company and Lease—	Prod.
Church et al:	
University	430
Church & Weekly:	
University	1,015
Church & Fields:	
Duoil-University	200
Cromwell & Pickrell:	
University	2,810
Eastland Oil Co. & Collett:	
University	11,600
Gulf Production Co.:	
J. T. McElroy	15,345
Crier-McElroy	
State-Lasseter	
Humble Oil & Ref. Co.:	
University	5,748
Independent Oil & Gas Co.:	
Hughes	10
University-A	1,087
Landreth Prod. Co.:	
Cowden-Anderson	5,100
McMan Oil & Gas Co.:	
Hughes	85
Magnolia Petroleum Co.:	
University-Hardwick	618
University-O'Keefe	180
State-Lasseter	92
Magnolia Petroleum Co. et al:	
University	125
Marland Oil Co.:	
Cowden-A	70
Cowden-B	95
Durham	5
Hughes-C	55
Hughes-D	885
Hughes-Gibbs	41
Prairie Oil & Gas Co.:	
University	415
State-Lasseter	224
Simms & Atlantic:	
University-A	4,668
University-B	60
University-C	3,910
University-D	876
Stidham & Thrasher:	
University	10
The Texas Company:	
King	287
Union Land-F	5
University	330
Tidal Oil Co.:	
University-B	72
University-C	40
University-E	115
University-F	5,893
University-H	50
Total	62,551

Crockett County

Cromwell et al:	
Powell	150
Gulf Production Co.:	
Powell-A	111
Powell-D	
J. K. Hughes:	
Powell-A	180
Powell-B	30
Humble Oil & Ref. & Marland:	
Powell	370
Sorg	5
Powell-E	35
Republic Prod. Co.:	
Powell	190
Roxana Pet. Corp.:	
Powell	20
P. H. Williams:	
Powell	310
Total	1,401

Ector County

J. S. Cosden:	
Connell-A	100

Garza County

Emerald Oil Co.:	
J. M. Boren	5

Glasscock County

Texon-Marland:	
Settles	34

Howard County

Bristow & Merrick:	
A. J. Hooks	118
Comet Petroleum Co.:	
H. R. Clay	9
Dixie Oil Co.:	
H. R. Clay	8
F. H. E. Oil Co.:	
John Roberts	16
Godley Oil Co.:	
A. J. Hooks	25
Gulf Production Co.:	
Chalk	34
Humble Oil & Ref. Co.:	
Douthit	35
Lockhart & Co.:	
Chalk & Chalk-A	97
Lockhart & Carey:	
Scott	8
Magnolia Pet. Co.:	
O'Daniel	8
G. O. Chalk	207
Hyman Chalk	30
Mary Chalk	301
Otis Chalk-A	200
Sarah Hyman	35
Sloan Chalk	48
Kelly Chalk	125
Marland Oil Co.:	
Chalk	300
Chalk-A	289
H. R. Clay-A	260
H. R. Clay	145
Otis Chalk-B	60
Otis Chalk-C	30
Otis Chalk-D	48
Otis Chalk-E	175
H. R. Clay-B	25
Harding, J. B.	40
Midwest Exploration Co.:	
H. R. Clay	15
Owens & Sloan:	
John Roberts	30
Pure Oil Co.:	
Otis Chalk	271
Reeves & Apperman:	
H. R. Clay	143
Tidal Oil Co.:	
Otis Chalk	40
Total	3,175

Jones County

Atlantic Oil Prod. Co.:	
Howell	15
Marland Oil Co.:	
Mason	436
Midwest Exploration Co.:	
Thornton	300
Phillips Petroleum Co.:	
Tessie-Walling	400
Winters	300
R. M. Beasley	85
J. C. Mason	165
H. B. Vestal	147
Stebbins Oil Co.:	
Higgs	16
Total	1,864

Loving County

Lockhart & Co.:	
Allen	20

Mitchell County

Atlantic Oil Producing Co.:	
Womack	123
California Co.:	
All leases	2,772
F. J. Carey et al:	
E. Morrison	13
Eastland Oil Co.:	
All leases	259
Magnolia Petroleum Co.:	
All leases	654
Tidal Oil Co.:	
All leases	31
Total	3,852

Pecos County

Allsman & Bell:	
Pecos River Bed	90
Mid-Kansas O. & G. and Trans.:	
Smith-Taylor	735
Yates-A	2,230
Yates-B	922
Yates-C	501
Texon Oil & Land Co.:	
Yates	0
Total	4,478

Reagan County

Big Lake Oil Co.:	
University	17,832
Texon Oil & Land Co.:	
University	6,110
Total	23,942

Scurry County

Northwest Oil Co.:	
All leases	21

Upton County

Amerada Petroleum Corp.:	
Hughes	270
Atlantic Oil Prod. Co.:	
Sherk	30
Bryant & Atlantic:	
Baker	50
Dixie Oil Co.:	
Burleson	3,605
Hughes	220
Gulf Production Co.:	
Baker	2,420
Baker-B	
Es.ep	
Hughes	
Lane-C	
J. T. McElroy-B	
Sherk	
J. G. Lane	
Humble Oil & Refining Co.:	
Burleson	90
Ricker	955
Independent Oil & Gas Co.:	
Burleson	71
Taylor	442
Wooley	711
McMan Oil & Gas Co.:	
Baker	40
Marland Oil Co.:	
Baker-A	40
Benton Land	0
Burleson	645
Burleson-A	0
Burleson-B	6
Estep	725
Hughes-B	0
Keith	180
Snager	420
Shirley	291
Powell	214
Shirley-A	15
Gibbs	210
Prairie Oil & Gas Co.:	
Lane	713
Allie Lane	572
Republic Prod. Co.:	
Roxana Petroleum Corp.:	
Bowen	3,111
Estep	110
Hughes	460
Simms Oil Co.:	
Shirley	95
Snowden & McSweeney:	
Hughes	200
Sun Oil Co.:	
Burleson & Baker	300
The Texas Company:	
Burleson	52
King	401
Perry	200
Texon Oil & Land Co.:	
Sherk	20
Tidal Oil Co.:	
Hughes	30
T. P. Coal & Oil Co.:	
Sherk	140
Lane-A	2,613
Lane-B	0
White Eagle O. & R. Co.:	
Hughes	35
Wentz Oil Corp.:	
Sherk	125
Totals	21,140

Winkler County

Independent Oil & Gas Co.:	
Hendricks	27
Southern Crude Oil Co.:	
Hendricks-A	245
Hendricks-C	656
Gulf Prod. Co.:	
Hendricks	351
Totals	1,279
Grand totals	123,861

I. C. C. Decision Means No Change In Export Rates

Assurance that the present export trade differentials to Texas and Louisiana gulf ports will not be disturbed in the immediate future was given last week when the Interstate Commerce Commission announced a decision in what is generally known as the port differential case. In this decision the commission practically reversed a previous decision in which new rates were authorized which were favorable to the Texas Gulf ports.

The original decision involved other products than petroleum. This first decision authorized changes which if they had become effective would have meant lower rates on gasoline and kerosene to the Texas Gulf Coast from Texas points without any reduction to the Louisiana Gulf Coast terminals. Since the bulk of the export movement is to Louisiana terminals it was contended that the change would work a special hardship on Oklahoma and Kansas refiners in their export shipments.

Louisiana interests were able to have the case reopened along with a postponement of the date on which the new rates would be effective. The latest decision means that the present rates will not be changed at this time.

OKLAHOMA GASOLINE MARKET STEADY

(Continued from Page 28)

be in effect. Should the North Texas prices not be advanced it is apparent that other groups will be forced to lower their quotations.

Outside the Mid-Continent, refiners with plants located in the Middle West as far east as Ohio were offering U. S. Motor gasoline under Oklahoma prices. This is not an unusual situation, however, as a few refiners favorably situated as freight rates often quote under the Mid-Continent in their tank car sales.

Effect of Seminole

The other development which is causing some uneasiness relative to the future of the gasoline market in Oklahoma lies in the increased production of the Seminole Field in Oklahoma. Elsewhere in this issue will be found complete reports relative to the present status of that field which has reached a new peak of approximately 450,000 bbls. daily.

For several weeks the writer has heard statements to the effect that the status of Seminole production as a factor in Mid-Continent gasoline prices was of more importance than the actual refinery statistical situation. Refiners that have salesmen calling on the trade state that every substantial jobbing concern in the Middle West obtains daily reports from various sources relative to the production of the Seminole Field.

To the jobbing trade apparently the entire oil business is revolving around the advance and declines in the production of that field. The buying trade is aware that there is an overproduction of crude oil largely coming from the Seminole Field. As long as the production continues to climb in that area, they take the position that higher gasoline prices are not justified and cannot be maintained. Undoubtedly jobbers and other buyers of petroleum products are keeping in closer touch with crude oil conditions in the industry than they did a few years ago and for that reason have a better overall picture on which to base their purchases.

Gasoline and Naphtha

With the higher prices for the U. S. Motor more inquiries were received for the lower gravity and higher endpoint gasolines. Despite the 7-cent U. S. Motor price there is still an adequate margin for the jobber in his tank wagon and service station sales at most points in the Middle West. However, price wars are in effect at several points and jobbers are trying to carry through the period of low retail prices by buying the cheaper grades of gasoline. The 450 endpoint gasolines including naphthas were quoted from 6½ to 6¾ cents.

The higher U. S. Motor prices were also held responsible for greater activity in blends. With the best grades of natural gasoline selling around 4½ cents blenders are able to undersell the U. S. Motor price.

One buyer reported that he was offered 437, 400 and 475 endpoint gasoline from the same refiner at a price differential of one-eighth cent. Some refiners are quoting 7½ cents for 60-62 400 and 7¾ cents for 64-66 375, but these prices could be shaded an eighth to a half cent by buyers who were seeking the lowest priced material in the field.

Fuel and Gas Oils

Gas oils in Oklahoma went back to a low of 2¾ cents the first of the week. This product has fluctuated between 2½ and 2¾ cents for several weeks. One explanation offered for the better gas oil market is based on the higher gasoline prices. It is assumed that the advance in motor fuel prices will make gas oil more attractive as charging stock for cracking units.

The Oklahoma fuel oil market was steady during the week with buyers unable to find much material available for shipment over the remainder of the month. The Oklahoma situation is in contrast to that prevailing in Kansas since the first of the month. Ordinarily the Kansas refiners sell their fuel oil and gas oil from 10 to 15 cents a barrel over Oklahoma being able to benefit from a reight advantage to near-by consuming points. A surplus has accumulated, however, and buyers have been purchasing the low gravity grades as low as 85 cents for interstate shipment and gas oil as low as 2⅝ cents. This situation, if it continues indefinitely is expected to weaken the Oklahoma market.

Kerosene and Distillates

If there is any change in the kerosene and distillates it was again not reflected in the Oklahoma spot market. Refiners continue to make contracts for distillates with the jobbing trade. With rare exceptions they are based on the spot market as determined by trade journal quotations. Delivery starts immediately on some of these contracts while others will wait until the latter part of next month.

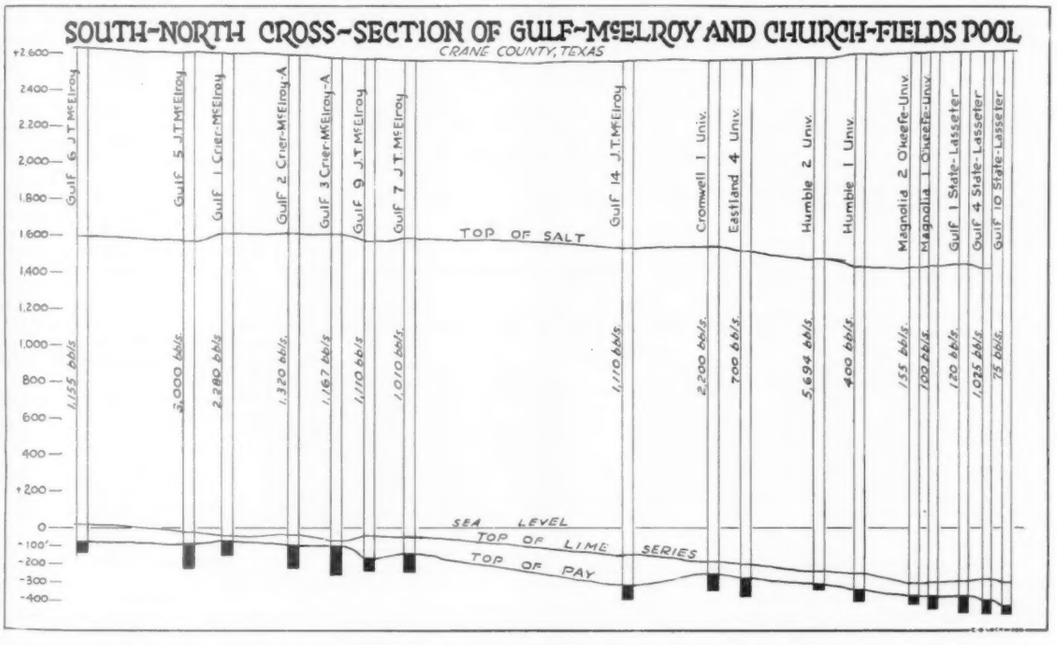
Natural Gasolines

A few manufacturers last week said there would be a quarter cent advance in natural gasoline the first of this week. A careful check made with representative manufacturers and buyers on Monday and Tuesday did not sustain this prediction. Prices were practically the same as last week. Outside of a 150-car purchase by the Humble Oil & Refining Co., there have been no large sales during the past two weeks. The Humble, during the past week, was reported to be paying 4½ cents for Grade A in small orders.

There is little price difference in the five grades, the low on Grade C in Oklahoma being 4¼ cents and the high on Grade A 4⅝ cents.

Lubricants and Wax

Refiners in Oklahoma which do their own compounding at their refineries report a better movement. This improvement reflects a better retail demand. These compounded oils vary in their specifications with a wide spread in prices. Wax sales were made at 4⅜ and 4½ cents during the past week.



The accompanying cross section of the Gulf-McElroy and Church-Fields Pool runs almost due north and south through the center of the field. It shows the dip to the north and the fact that production is obtained near the top of the lime series. The "top of lime" both on the cross section and the contour map is the top of the Brown lime or base of anhydrite. Under that is the gray lime, which a number of companies use for correlation purposes, and the oil is found just a few feet in this gray lime. As stated before, these formations, however, are not uniform in all wells, some being missing. The phrase "top of lime" as used in West Texas is very misleading unless you know what stratum the individual who correlates the logs refers to. The only way any particular stratum in the lime can be identified, too, is by careful examination of the cuttings from the well and in many cases even then it is largely a matter of judgment and guesswork.

The Gulf Production Co. located the sulphur water table in the northeastern portion of the Church-Fields area by drilling its No. 6 State-Lasseter to 3,105 feet where the water rose 700 feet in the hole. The well was plugged back to 3,088 feet and its best production was 290 bbls. in 17 hours. Top of pay was 3,035 feet and the first flow came at 3,065 feet.

The best production seems to occur on the higher parts of the structure as a general rule but in individual cases the porosity of the lime governs the output, as in practically all lime pools.

The Stidham & Thrasher well on the west side of the field encountered exceedingly hard lime which was scarcely affected by a couple of heavy shots.

These two pools together are estimated to have produced nearly 1,500,000 bbls. of crude during June. Their output during May was in excess of 1,000,000 bbls.

Late Fields

(Continued from Page 39)

total output for June being 3,487,555 bbls. The Big Lake Oil Co. led as usual with 552,500 bbls. The Gulf was second with 436,475 bbls. Eastland Oil Co. and Collett rose to third place with 269,964 bbls. Simms and Atlantic, Humble, Mid-Kansas and Transcontinental, and Texon Oil & Land Co. were the others producing more than 200,000 bbls. each.

BIG PANHANDLE SHIPMENTS

AMARILLO, Tex., July 12.—A record movement of crude out of the Panhandle was made during the month of May when all but 280,000 bbls. of crude produced in the field was shipped out. There were 18,619,000 bbls. of crude in steel storage July 1, against 18,338,000 bbls. in storage June 1. Steel storage capacity on July 1, was 23,234,000 bbls., with approximately 4,500,000 bbls. of room available and one 55,000-bbl. tank being built. Pipe Lines pumped 1,975,000 bbls. out of the field and 4,603 cars were shipped out. Around 250,000 bbls. of crude was run to refineries in Amarillo and Borger. Production of natural gasoline in the Panhandle totaled 8,308,500 gallons during May. More than 2,130,000 gallons is in storage in Panhandle.

MAY BE A NEW GAS FIELD

SHREVEPORT, La., July 12.—In the Pine Island Field the Gulf Refining Co.'s No. 13 Tyson, Section 14-21-15, a half mile east of Haynes Brothers' No. 1 Murray, which came in as a gusher July 3, was bailed in Tuesday afternoon making around 100 bbls. of salt water an hour with 30,000,000 feet of gas daily. This well was completed June 25 as a 28,000,000-foot gasser at 3,730 feet, but was deepened to 3,800 feet in an attempt to pick up the Haynes well production.

Hazlett and Simmons' No. 1 Neeley, Section 1-14-12 Red River, a rank wildcat, tested 10,000,000 feet of gas daily with a testing device in a sand at a total depth of 1,712 feet. This is believed to have opened a new gas field.

KANSAS

The Roxana Petroleum Corp.'s No. 1 Emrich, on the Oxford Townsite, is holding up at 180 bbls. daily from sand at 2,012-50 feet. The Roxana has made four additional locations upon the townsite, and there are now 16 locations in this area.

Technical Questions Answered

BY CHARLES K. FRANCIS, PH.D., TECHNICAL EDITOR

The Question and Answer Department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry. Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with the marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible so as to assure a satisfactory answer.

All inquiries should be signed and if other than the given initials are to be used please indicate the desired letters.

Questions involving patented processes, intricate formulas and calculations and estimates of costs, for obvious reasons, cannot be answered. The replies will appear on this page within a reasonable time.

ADDITION OF IRON OXIDE TO MUD FLUID

Can you give us some information relative to the use of iron oxide in connection with the use of a mud fluid while drilling through certain formations?—J. E. T.

A description of the method of using a mud fluid containing iron oxide is to be found in Deep Well Drilling, by Walter H. Jeffery, page 350, as reported by B. K. Stroud, Supervisor Minerals Division, Louisiana Department of Conservation. He reports the successful use of iron oxide when added to mud fluid and also as an oxide fluid for sealing off water and gas. Various means, including the use of 2,500 bags of cement, were tried unsuccessfully to shut off a heavy flow of fresh water, together with gas at 250 pounds pressure, in a well located in Monroe County, Louisiana. A mixture of iron oxide and water, weighing 17 pounds to the gallon, effectually shut off both water and gas. A large part of the iron oxide was circulated out of the well and saved.

Iron oxide settles rapidly out of the mixture, however, and to prevent this a little clay should be added. A satisfactory mixture for drilling would be 1.7 pounds of iron oxide and 0.5 pound of clay to each gallon of water. For mudding off gas or water, the oxide should be increased to 5 pounds and the clay reduced to one-tenth pound to the gallon of water. Iron oxide, because of its finer grain, makes a close mud, offering greater resistance to gas and water, and probably it penetrates the formations to a greater degree than mud fluid.

FUELS FOR DOMESTIC HEATING

Will you kindly tell me what are the main differences between kerosene oil, distillate oil and furnace oil as fuels for burning in house-heating furnaces? There is considerable difference in the price of these and I would like to know which is the best or if there is any great difference in them.—W. S.

As you have named these oils they are less definite products in the order mentioned. Kerosene is specific in that it indicates a definite product both as to use and properties. Distillate oil is a term that may be applied to any petroleum distillate, it may mean unfinished gasoline, unfinished kerosene, gas oil, unfinished lubricating oil and other distillates. When sold for furnace use distillate oil is somewhat more definite. Furnace oil may include kerosene, distillate oil, gas oil and numerous oils.

Kerosene is a petroleum distillate which is purified for use in lamps and to some extent as a fuel. Under normal conditions it sells for a price too high to be widely used for furnace fuel. Its color is good, practically water white, has a low sulphur content; because, when sulphur compounds are burned products are formed which darken silver and therefore a high sulphur kerosene is objectionable. The gravity of kerosene varies between 40 and 45 A. P. I.

The better grades of distillate may consist of unfinished kerosene or products which contain a large quantity of kerosene. When the material is to be used for fuel it need not be purified to the extent that kerosene is. The color has no bearing on the heating value. Sulphur may be present to a larger extent without being objectionable. The gravity of distillate oil may be between 30 and 45 A. P. I. It should sell at a lower price than kerosene.

The term furnace oil is too indefinite. It would include any oil which might be used for burning in the furnace. As a number of oils of various grades could be termed furnace oils, the selling price may range of a very wide spread.

An oil which is to be used for domestic heating should be clear, free from solid material and water. It should not flash at too low a temperature but should ignite easily. The oil should flow easily at the temperature to which it may be exposed while in service. Exact specifications must depend upon local conditions including the kind of burner and other attachments to the furnace.

ELECTROLYSIS AND CORROSION

It will be appreciated if you will give me some exp'anation of the difference between electrolysis and corrosion of pipe lines?—R. S. L.

In a very broad way electrolysis has been looked upon as corrosion which results from the action of stray electric currents. This is frequently the explanation of instances where there has been rapid or extensive deterioration of underground pipe. The more exact use of the word is for the purpose of explaining corrosion.

There were two articles on this subject in The Oil and Gas Journal, June 16, 1927, by K. H. Logan of the United States Bureau of Standards. The following is abstracted from the articles on pages G-221 and G-224.

Rapid corrosion of iron and steel has been observed in a few soils where there were no stray electric currents. No one ferrous material has been found to be superior under all soil conditions. It is thought that there is some relation between corrosion and some characteristics of the locality in which it occurs. It seems probable that some physical or chemical property of the soil controls the rate of corrosion.

There is a general agreement that all corrosion is an electrolytic phenomenon. If the electrolytic theory is correct, the fundamentals of corrosive action are the same for both stray current electrolysis and soil corrosion, although the origin of the currents are quite different. The action being fundamentally the same in all cases, we can hope to distinguish the causes of corrosion only through secondary reactions, if at all.

We may define electrolytic corrosion as that due to currents originating in electrical machinery; and soil corrosion as that which is independent of such electric currents. Whether the electric current, always associated with corrosion, originates in an electric machine is due to small galvanic cells, by which, according to the electrolytic theory, all corrosion originates, it remains true that there is usually a close relation between the quantity of electricity transferred from the corroding metal and the amount of corrosion. In this lies a partial justification for the assumption that rapid or extensive corrosion is due to electrolysis, since we know that the use of electric machines is one of the easiest ways for generating electricity in quantity. It is known that while stray currents can cause rapid corrosion, similar results can be produced otherwise.

Graphitic corrosion is frequently thought to be evidence of electrolysis. Gray cast iron, from which pipes are made, contains from 2 to 3 per cent of free carbon in the form of small graphite flakes. When corrosion occurs part of the pure iron, ferrite, goes into solution and often is carried away from the pipe, while another part takes up moisture and oxygen to form hydrated ferrous oxide, a soft substance. The color and softness has led many to think it is graphite, although a test with a magnet will show that it is magnetic, a property not possessed by graphite. Analyses show it to contain more carbon than the original pipe material. This is due to the removal of part of the iron and not the accumulation of carbon. If this soft material is exposed to the air it will gradually turn red and approach the appearance of ordinary rust. Corrosion has advanced so rapidly that oxygen could not reach the corroding iron fast enough to form at once the ferric oxide.

There is no characteristic difference either in form or composition whereby we can tell from the corrosion alone whether it is due to electrolysis or soil action. To be assured of electrolysis we must find the stray current. The presence of material known to be corrosive, such as cinders, salt residue, furnace slag, factory waste, is of course positive evidence of the source.

DEPHLEGMATION PROCESS IN PETROLEUM REFINING

What is the meaning of dephlegmation as applied to the preparation of a petroleum product?—J. B. T.

Dephlegmation is a process whereby portions of a vapor are condensed and returned to the fractionating or separating zone. The true dephlegmator is a piece of apparatus which is separate and distinct from the separating column. Dephlegmators may be known under numerous names; examples include reflux towers, reflux condensers, exchangers, analyzers, knock backs, temperature control coils, cooling heads and aerial condensers.

A common form of a dephlegmator consists of a cooling device placed on the top of a tower, or in the upper part of a tower. There must be a proper balance between the dephlegmating surface and the fractionating column in order to obtain worthwhile separation.

The cooling mediums used in dephlegmators vary. Air, water, steam, oil and vapors are utilized under many conditions.

The essential principle of dephlegmation is that a cooling medium is employed and controlled so that a constant temperature, or at least practically constant temperature, may be maintained at a desired point, so that a definite quantity of vapor is condensed and caused to flow through an ascending volume of vapor, which is at a higher temperature. There is in operation the process of distillation. Any material, boiling at a lower temperature, that may be present in the refluxed (condensed) liquid passes again to the vapor stage, while the heavier or higher boiling point substances fall into a hotter zone there to be heated to a temperature sufficient to cause vapors to form from some part of the liquid. There is a constant separation of the volatile substances from the mass which is largely made up of liquids that pass into the vapor only at a much higher temperature.

The cooling medium is very often the oil to be distilled. This may pass through a dephlegmator on the way to the still, while serving to cool the hot vapors the charge of oil is heated and loses some of its lower boiling point constituents before it reaches the still

Dephlegmation is, therefore, a separating process, a sifting process. It is a process acting on the hot vapors or hot liquids so that volatile products are removed and the less volatile products returned for further processing.

A similar question was answered in this department January 20, 1927.

PRODUCTS DERIVED FROM PETROLEUM BY COMPLETE REFINERY

Will you give us a list of the substances which are made by a complete refinery, that is a refinery having stills for handling crude oil, cracking stills and a lubricating plant?—P. Y. K.

The products named below are those which may be made in a refinery, which consists of the three units mentioned, and operated for the manufacture of the ordinary substances. With special operation and extended treatment many different grades may be made of these products and numerous additional products are made by special processes. By extended treatment lubricating oil is freed from odor and taste so that it is now possible to market a high quality lubricating oil to be used for medicinal purposes. Asphalt may be mixed with other substances for making a valuable paint. Through the application of special processes certain kinds of alcohols are produced for use as gum solvents. These are a few examples indicating that numerous additions may be made to any list of products representing the output of a refinery.

The ordinary refinery of this type may make the following:

1. Gas
2. Gasoline
   - a. Natural gasoline
   - b. Straightrun gasoline
   - c. Synthetic gasoline
   - d. Blends of a-b-c.
3. Naphtha
   Numerous grades.
4. Kerosene
   Several grades.
5. Burner or domestic distillate
   Several grades.
6. Gas oil, from which is made
   - a. Gas
   - b. Synthetic gasoline
   - c. Synthetic kerosene
   - d. Special fuel oil.
7. Lubricating oil
   Numerous grades.
8. Wax
   Several grades.
9. Fuel oil
   Several grades.
10. Road oil
    Several grades.
11. Asphalt
    Several grades
12. Coke.

RESEARCH

The design of all BRAUN apparatus has a *background* of exhaustive research—including practical experience, experimentation in design and *careful* tests of materials in the completely equipped BRAUN Research-laboratory · Every factor is considered which may produce greater efficiency, longer life and greater ease of operation

BRAUN

C·F·Braun & Co·Manufacturing Mechanical Engineers

ALHAMBRA CALIFORNIA

TULSA · NEW YORK · DALLAS

BRAUN

Of Interest to Sales Departments

MID-CONTINENT AREA GASOLINE PRODUCTION

The Oklahoma, Kansas and North Texas petroleum-producing areas, whose output is mainly light crude oils, have always led in the production of gasoline, according to the United States Bureau of Mines, Department of Commerce. Although the discovery of the pools of light oil in the Los Angeles Basin greatly increased the output of gasoline in California, oversupply and technical difficulties have retarded the installation of much cracking equipment, and the percentage recovery is still relatively low.

The Atlantic Seaboard and the Texas Gulf Coast are the main areas that produce kerosene. A large proportion of the output is exported, as the refineries of these two areas are advantageously situated for foreign trade.

California has always been the leading producer of fuel oil. The lack of coal in that State provides a market for great quantities of fuel oil for industrial purposes, the most important of which is railroad consumption. The output of gas oil and fuel oil in California in 1925 amounted to 130,068,000 bbls., equivalent to 71 per cent of the total crude run in that State, and to 36 per cent of the total output of gas oil and fuel oil in the country.

The most important area for the production of lubricants is the Atlantic Seaboard, where 30 per cent of the total for 1925 was produced. In proportion recovered, however, the Appalachian area led, since 18 per cent of the crude run there was recovered as lubricants, as compared with only 7 per cent in the Atlantic Seaboard.

The area of petroleum coke production corresponds with that of the great centers of cracking; the Atlantic Seaboard, the Indiana-Illinois district, and the Texas Gulf Coast. California produces no coke of consequence, as little cracking is done in that State. Refining in California is not carried to the coke stage; that is, crude oil is not run to coke but is distilled to fuel oil, road oils, or asphalt.

The asphalt-producing areas are those in which heavy oils are refined. These areas, in order of importance, are the Atlantic Seaboard, the Texas-Louisiana Gulf Coast, and California. The major part of the asphalt produced, in all but the California district, is made from foreign crude petroleum, the bulk of which comes from Mexico.

SOUTHEAST JOBBERS CONSIDER TERMINAL

J. B. Belk; of the Albemarle Oil & Gas Co., Charlottesville, Va., president of the Virginia Independent Oil Men's Association, has written a circular letter to the jobbers in Virginia, North and South Carolina, outlining advantages he thinks that could be derived by their subscribing to stock in the building of a large storage terminal somewhere along the Virginia coast. In it he has pointed out the need for the independent jobbers to protect themselves in the matter of a future adequate and dependable supply. Refined products could be received from California, Atlantic Coast refineries and from Mexico and the competition would allow the terminal minimum prices.

If the jobbers do not choose to finance the project outside interests have outlined the conditions under which they would finance it, according to Mr. Belk. The expenditure necessary has been estimated at about $150,000 and the terminal should include about 100,000 bbls. storage. The average movement per month has been figured at 60,000 bbls. It is proposed to purchase the supplies from California and Gulf Coast refineries.

NEW KEROSENE USE

A new use for kerosene is reported by fishermen along the Maine Coast and although the quantity used may be small, it has the redeeming feature that the kerosene may have a strong odor.

Tanned and rugged sea toilers had a notion, never before tried out, that the scarlet shellfish might be lured to the traps by kerosene, according to the Boston Globe. It is common knowledge along the coast that lobsters hanker for anything having an odor of oil.

The more lusty the smell, the larger the catch. A fisherman recently conceived the idea of using kerosene by soaking some common house bricks in kerosene for 48 hours, and then placing them in the bait cabin of the trap. The bricks, because they are porous, absorb quite a lot of kerosene and the oily smell clings to the bricks for several days.

The results were surprisingly pleasing as more lobsters were found in the oil brick-baited traps than in those in which mixed bait was used. As the bricks retain their oily odor for several days, the work of baiting the traps is lessened, and the expense not heavy, as a gallon of oil will answer for a number of bricks.

MOTOR PRODUCTION AWAITS FORD PLANS

WASHINGTON, D. C., July 9.—Production of cars and trucks during May in the United States continued to fall below the production of the same month last year, according to the Department of Commerce. The May output totaled 422,149 in May against 446,137 in May, 1926.

For the first five months of this year the total production of cars and trucks has totaled 1,504,658, a decrease from the 1,730,848 total for the same period last year. The difference is said to be largely due to the drop in the number of cars manufactured by the Ford Motor Co. The output of several companies this year has been greater than last.

Most automobile manufacturers are said to be expecting a decline in output during the summer months. Buyers waiting to see what the new Ford models will be have cut in heavily on the sales of the cheaper cars which will be reflected in the plant output.

HOLDING SALES MEETINGS

CHICAGO, July 9. — The Shaffer Oil & Refining Co. has been holding a series of sales meetings largely to give employes of the organization and its subsidiary companies, the Home Oil Co. and the Deep Rock Oil Co., a better understanding of the new advertising campaign which has been put on to increase the sale of the products of the Shaffer Oil & Refining Co. The last of the series was held at Minneapolis, Minn., on June 28, and included representatives of the organization from Minnesota, North and South Dakota.

OIL USED ON FARMS FOR FUEL AND LIGHT

The results of a farm equipment survey made under the direction of the Industrial Research Service of Washington, D. C., covering the United States, shows that 34.5 per cent of the farm homes use kerosene or gasoline as fuel for cooking and 74.2 per cent are lighted with oil. These figures are results of answers received from about 36,000 farmers over the United States and were sufficiently well distributed geographically to make the survey fairly representative of the total. The manner in which the balance of the homes are equipped is given in the following table:

Per cent of farm homes equipped to cook with various fuels:

Wood	55.6
Coal	33.5
Oil	34.5
Gas	3.5
Electricity	3.6
*Total	130.7

Per cent of farm homes equipped with various means of lighting:

Kerosene wick lamps	56.8
Oil mantel lamps	17.4
Gas	3.2
Electricity	27.4
*Total	104.8

*Some homes have more than one kind of equipment.

OIL MEN ASKED TO AID

CHICAGO, July 9.—Some of the oil companies have received requests from the executive secretary of the American Oil Burner Association to contribute towards the fund that is being raised to conduct an advertising campaign in the interests of the domestic oil burner. Some of the officials who have received this request seemed surprised and at least at the first thought unwilling to do as asked. One oil company has been asked to contribute $35,000.

It is pointed out that after the oil burner is installed in any home the manufacturer is done with it so far as future profits are concerned. The subsequent profits will be made, if any, from the use of that oil burner by the man who sells the liquid fuel it consumes. The domestic oil burner will give the oil refiner a market for a portion of his output that has been of little or no profit. It should make it possible for the refiner to make more money.

To the distributor it gives a substantial volume of business at a time of the year when much of his equipment and his staff of experienced oil men would otherwise have very little profitable employment. The domestic oil burner does not really compete in any way with the gasoline department of the industry but supplements and rounds out the business of both refiner and wholesale and retail distributors.

HOUSE HEATING WITH OIL FUEL

The third edition of "House Heating With Oil Fuel" is now available from the publishers, Heating and Ventilating Magazine Co., 1123 Broadway, New York. The new edition is edited by P. E. Fansler, associate editor of The Heating and Ventilating Magazine. The book covers all phases of the problems pertaining to the use of distillates in household heating. The chapter discussions include "Buying An Oil Burner," "Selling Oil Burners" and "Installing the Oil Burners." The book contains 354 pages with 200 photographs.

Short Talks on Specifications

By W. T. Ziegenhain

BURNING TEST FOR KEROSENE

Prior to the development of the automobile, crude oil was refined with the object of making a maximum yield of kerosene as a substitute for coal oil. Refiners then made from 15 to 20 per cent of the crude into kerosene but today the average yield is about 7 per cent. A great portion of the fraction that used to go into kerosene now is a part of the gasoline yield. This was made possible by the development of stills and fractionating equipment. In general an increased gasoline yield has been obtained at a sacrifice in the kerosene quality.

Although most kerosene is purchased on a gravity basis, the more important test is the burning test. It is the only test that gives an accurate index of how oil will function in its actual use. This applies to kerosene used for illuminating purposes but also serves as a fair index of its quality for heating purposes or as a tractor fuel.

To make this test, a Standard lamp is prescribed and it must be equipped with a No. 2 Sun Hinge burner. The lamp and burner are as near representative of the general run of lamps in use as possible. The test procedure provides that the lamp be cleaned and operated in a well-ventilated room free of excessive drafts. The kerosene is poured into the bowl until nearly full and the wick inserted into the burner until it is entirely saturated with oil. The wick must be trimmed to produce a flame not over 1 inch high. The flame should be free of peaks and if these occur the wick is trimmed down accordingly.

After the lamp burns for one-half hour the flame is readjusted to give the largest flame without smoking. The consumption of oil should be between 41 and 45 c.c. per hour and can be determined by weighing the lamp at intervals.

If these requirements are met the lamp is allowed to continue to burn and time is checked from that point. Unless the time is agreed upon, the test is made over a 16-hour period. At the end of that time the flame must be clear and practically as large as when the final adjustment was made at the beginning of the 16-hour period. If the oil is of good quality there is no accumulation of soot on the wick and the chimney remains clear or only slightly cloudy. An experienced tester can readily determine the quality of the sample.

This lamp and procedure is in general use and has been adopted by the United States Government and the A. S. T. M. in its last meeting.

Time is Money

Special Mid-Continent Bright Stock and Neutrals

Time dominates business. Profits may swing on the pendulum. The oil industry is keenly sensitive to days, hours, minutes.

Orders zip across the continent on electric wings. Schedules must be met, — high quality must be maintained, — both are certainties with Pure Oil. Phone, write or wire.

THE PURE OIL COMPANY
U. S. A.

Independent—and successful, through unvarying high quality in all its products.

Sales Offices

CHICAGO
NEW YORK
PHILADELPHIA
PITTSBURGH
COLUMBUS, O.
MINNEAPOLIS
TULSA, OKLA.
CHARLESTON, W. VA.
ATLANTA, GA.
BEAUMONT, TEX.
PENSACOLA, FLA.

Refineries

MUSKOGEE, OKLA.
ARDMORE, OKLA.
SMITH'S BLUFFS, TEX.
HEATH, OHIO
MARCUS HOOK, PA.
CABIN CREEK JCT., W. VA.

Determine Specific Gravity of Gas

Explain Importance in Measurement of Gas Volume. Describe Several Methods of Field Measure

By E. L. Rawlins
Associated Natural Gas Engineer, United States Bureau of Mines

The most common and best known types of apparatus that are used today for field measurement of specific gravity of natural gas are:

1. The Schilling specific gravity apparatus.
2. The Edwards gravity balance.
3. The Pierce gravity balance.
4. The Precision gravitometer.
5. The Acme recording gravitometer.

Schilling Apparatus

The Schilling specific gravity apparatus is based on the laws of the effusion of gases. Theoretically, two gases, under similar conditions of pressure and temperature, will flow through a small orifice at a rate that is inversely proportional to the square roots of the respective gravities.

The apparatus consists essentially of a glass jar filled with water, in which a calibrated glass tube, used for the volume measurement of the gas, is inserted. It is preferable to have this glass tube contracted at the top to permit more accurate readings. The bottom end of the tube is open. A cap is fitted to the top, and above the cap is a three-way stop cock by means of which the glass tube may, first, be opened to the atmosphere; second, connected to the gas supply, or third, connected to a platinum tip which contains a small orifice through which gas may diffuse.

The method of operation is simple. First, the jar is opened to insure atmospheric pressure above the water. The calibrated glass tube, with the stop cock at the top open to atmosphere then is raised and lowered in the jar several times to purge it thoroughly with air. The stop cock is closed while the tube is out of the water and the tube then is lowered, the stop cock opened to the platinum tip, and the air that is trapped in the tube is allowed to diffuse through the orifice. The time, measured in seconds with a stop watch, that is required for a certain volume of air to diffuse through the orifice is recorded. The stop cock next is turned so that natural gas is forced into the calibrated tube, displacing the water that rose in it while the air was diffusing through the orifice. The gas is allowed to bubble through the water at a slow rate for a few minutes to insure saturation of the water with the gas and to purge the tube. The gas inlet then is closed by turning the three-way cock, and the gas is allowed to diffuse through the small orifice. The time required to pass the same volume of gas as air in the previous test is recorded.

Since the rates of flow are inversely proportional to the respective gravities, the following formula can be applied to calculate the specific gravity of the gas:

$$\text{Specific grav. of gas} = \frac{(\text{time for gas flow})^2}{(\text{time for air flow})^2}$$

Edwards Gravity Balance

The underlying principles of the Edwards gravity balance are the laws of compressibility and buoyancy. They are described fully in Technologic Paper No. 89, Bureau of Standards, as follows:

"According to Boyle's law the density of a gas is proportional to its pressure; and the buoyant force exerted upon a body suspended in a gas is proportional to the density of the gas and therefore to its pressure. Therefore, if the buoyant force exerted upon a body is made the same when suspended successively in two gases, then the density of the two gases must be the same at these pressures; or the densities of the two gases at normal pressure are in inverse ratio to the pressure when of equal buoyant force."

SPECIFIC GRAVITY IN GAS MEASUREMENT

The accuracy of volumetric measurement of natural gas, while flowing, depends largely upon the accurate determination of the specific gravity of the gas. Other factors, such as temperature and compressibility or deviation from Boyle's law, must, of course, also be considered. The accompanying paper is limited to the discussion of specific gravity, what it is, what are its effects on the measurement of gas, and how it can be measured.

The question is often asked, "What is actually measured when a determination of the specific gravity of natural gas is made?" Briefly, the specific gravity of any substance is the ratio of its density to the density of a standard substance under the same conditions of pressure and temperature. Density, in turn, may be defined as the actual weight of a substance per unit volume, or in concrete terms, it may be thought of as the weight of a cubic foot. In other words, when the specific gravity of a substance is measured, a comparison is made between the weight of a cubic foot of the substance and the weight of a cubic foot of some standard substance. For natural gas, the specific gravity is the ratio of the weight per cubic foot of gas to the weight per cubic foot of air.

Specific gravity, being a dynamic or weight factor, has a decided effect upon volumetric measurement of gas flow with orifice meters. If all other factors such as pressure, temperature, etc., remain constant, the volume of gas passed through an orifice varies with the square root of the specific gravity. It is therefore necessary to obtain accurate determinations of specific gravity, especially when large volumes of gas are bought or sold and the quantities are based upon orifice meter measurements.

The gravity apparatus consists essentially of a balance beam with its supporting fulcrum mounted inside a gas-tight cylindrical metal case. The balance beam has a light sealed globe made of brass or some similar metal on one end and an adjustable counterweight upon the other. The balancing effect is obtained by a fulcrum consisting of needle points resting on some hard surface; usually glass tubing split through the center, with the needle points resting in the semicircular depression. A mercury manometer is attached to the gas-tight metal case, to measure the pressure inside it.

In using the instrument to measure gravity, air first is forced into the metal case and manometer connections through an inlet at the front and top of the case with a small piston compression pump. Preferably, the air is dried before it goes into the case by allowing it to flow through a tube filled with calcium chloride. When the pressure inside the case exceeds that necessary to balance the beam, the needle valve on the inlet is closed and the pump is disconnected. The pressure inside the case is adjusted until the beam is balanced as closely as can be observed through the glass window at the front of the case by manipulating the needle valve on the inlet. An observation is made of the air pressure necessary to balance the beam. The balance case then is purged thoroughly with gas by removing the cover at the front of the case and allowing gas to circulate for a few minutes. The cover then is replaced, the case is filled with natural gas, and the pressure is adjusted to bring the beam to balance at the same zero point as the air balance. This pressure is noted. The relation between the two pressures for air and gas after adding the barometer pressure, gives sufficient data to calculate the specific gravity of the gas as follows[1]:

d_a = Air density at some standard pressure, p_a

d_g = Gas density at same pressure, p_a

p_a = Absolute pressure at which the beam balances in air.

p_g = Absolute pressure at which the beam balances in gas.

The buoyant effect of air displaced by the globe $= \frac{K\, d_a\, p_a}{p_a}$

The buoyant effect of gas displaced by globe $= \frac{K\, d_g\, p_g}{p_a}$

Where K is a constant depending upon the difference in external volume of the balance globe and its counterweight.

Since the buoyant force is the same in the two cases:

$$\frac{K\, d_g\, p_g}{p_a} = \frac{K\, d_a}{p_a}$$

$$\frac{d_g}{d_a} = \frac{p_a}{p_g}$$

$$\text{or specific gravity of gas} = \frac{p_a}{p_g}$$

[1]Bureau of Standards, Technologic Paper No. 89.

Pierce Improved Gravity Balance

The underlying principle of the operation of Pierce improved gravity balance, the relative buoyancy effect of air and gas, is the same as that used in operating the Edwards balance. However, there are several patentable features in the Pierce improved gravity balance that makes it easier to operate, more sensitive to gravity measurement and better adapted to field transportation and to field measurements.

This gravity balance consists essentially of the balance beam rod, 13½ inches in length and made of three-eighths-inch round rolled brass, with a sealed brass displacement float, 4 inches by 7⅝ inches, on one end and a counterweight consisting of two adjustable nuts made from 1⅜-inch round rolled brass at the other end. The fulcrum support for the balance rod consists of a fulcrum body made of one-fourth-inch sheet brass, four fulcrum blades of one-sixteenth-inch steel plate, and two fulcrum posts made of one-half inch hexagonal brass. The actual balancing effect is obtained from the contact between the two pairs of steel knife edges, thus giving a minimum surface area contact. A weight nut made of three-fourths-inch rolled brass is mounted on the underside of the balance rod between the two fulcrum blades on the rod. This weight can be adjusted to obtain the maximum balancing sensitivity.

The fulcrum posts are mounted on gauge base made of one-eighth-inch sheet brass, 14 inches in length. The balance rod with the displacement float, the counterweight, and fulcrum support is inclosed in a drawn seamless brass tube, 5½ inches in diameter and 22 inches in length. The balancing apparatus is mounted inside the tube by sliding the gauge base in two one-half-inch rectangular brass slides, and can be removed easily from the tube for adjustment by simply sliding it out at any desired time.

One of the good features of this balance is the mechanical support inside the tube that allows the balance rod to be clamped so that the knife edges are not in contact when the balance is being transported or when it is not being used. Two holder posts made of one-half-inch hexagonal brass and two clamps made of one-half-inch square brass, which are held rigid by nuts on the holder posts, make a clamp for the balance rod. When the gravity balance is to be used, the nuts on the holder posts are loosened, the clamps are removed from the balance rod and swung to one side, and the balance rod is lowered to the knife edges on the fulcrum posts.

The tube housing the balance is made leakage-proof by placing a ring rubber gasket in the cast brass head and clamping down the nuts that hold the head in place. A window is made in the head by clamping a glass face in place with a threaded brass ring. Gaskets are used in this connection to prevent leakage.

Two needle valve connections are made to the tube housing the balance. The connections for gas or air can be made quickly with flexible copper tubing at one of the needle valves and the other needle valve used to regulate the pressure and obtain a balance of the displacement float. A mercury manometer connected to the gas-tight tube records the pressure inside the tube. The complete apparatus is mounted on a 1-inch oak baseboard with a three-point level screw suspension. The balance can be quickly and accurately leveled.

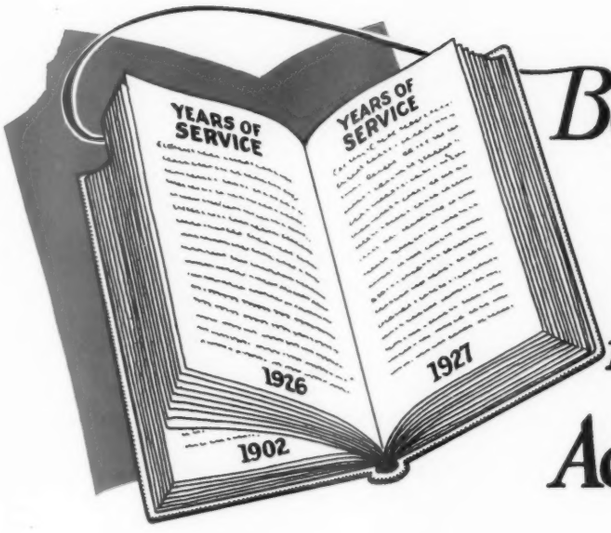
The actual operation of this gravity balance is similar to that of the Edwards balance except in operating it to obtain a zero balance reading. In the Pierce balance, the pressure adjustment is made while the balance beam with the attached float is swinging across the fulcrum in an arc. The zero balance reading is obtained when the pointer on the balance rod swings the same number of scale divisions each side of the zero mark. The specific gravity is calculated from the ratio of the respective pressures of air and gas necessary to balance the float as in the Edwards balance.

Precision Gravitometer

The precision gravitometer records the specific gravity of a gas. It operates on the principle of actually measuring the difference in pressure exerted by equal columns of air and gas.

An aluminum bell, about 7 inches in diameter and 1½ inches long, is inclosed by a housing containing a small amount of a light mineral oil. The aluminum bell is partly immersed in the oil. Gas of which the specific gravity is required passes through the housing over the top of the bell and out to the atmosphere through a long vertical tube connected to the center of the top of the housing. The underside of the aluminum bell is exposed directly to the atmosphere pressure. The difference between the pressures exerted on the two sides of the bell is proportioned to the difference between the weight of the gas column and column of air having a length equal to that of the vertical tube.

This pressure difference on the two sides of the bell causes a vertical move-



Behind the Name LAYNE is 25 YEARS of Accomplishment—

And This Accomplishment Has Meant The Solving of Many Oil Industry Problems

The Layne Keystone Wire-wrapped Screen is one of the products of our 25 years association with the problems of the oil industry.

It is constructed by a special patented process, and is combined with perfect materials and a close and rigid inspection of the finished product, assuring maximum production.

The Layne & Bowler Company

HOUSTON, TEXAS

VICKERS, LIMITED
London, England

THE LAYNE & BOWLER CORP.
Los Angeles, Calif.

For Twenty Years

the Hough Seamless Steel Working Barrel has been on the market. Offered in a variety of sizes, threaded for standard tubing, hard, endurable inside finish. Thousands are in use everywhere; real value giving real performance.

Your Dealer Carries it in Stock

THE CHARLES N. HOUGH MFG. CO.
Franklin, Penna.

W. Tarkington
1724 Ruth Street
Houston, Texas

C. O. Shumaker
1143 S. Xanthus St.
Tulsa, Okla.

Products that cut down your underground overhead

BURT *Service is Complete*

The Burt Manufacturing Company has for over 35 years offered the Petroleum Industry a specialized service as the Pioneer Manufacturers of Oil Filters and allied products;

BURT Products

Oil Filters—"Gary Type," Cross, American, Warden, Double Unit—Oil Reservoirs, Pumps and Complete Systems.

Ventilators—Fan, Glass Top, Sliding Sleeve, Metal Top Cone Damper, Weave Shed, Double Damper, Metal Top Sliding Sleeve, Ball Bearing Revolving, Rectangular.

Exhaust Heads—Burt and Standard. All sizes and metals for every condition.

Write for Burt bulletins and prices. Let us know your requirements. The advice and assistance of our engineering staff is at the disposal of manufacturers.

THE BURT MANUFACTURING COMPANY
Pioneer Oil Filter Manufacturers
929 S. High Street, Akron, Ohio

ment of the bell. This movement is transmitted through pivot points and an arm attached to the bell to a recording mechanism, where the gravity of the gas is recorded on a specific gravity chart.

The instrument is calibrated to record the gravity for an atmospheric pressure of 29.22 inches of mercury and a temperature of 60 degrees Fahrenheit. The directions as given by the manufacturers for determining the gravity under other conditions of barometric pressure and temperature are as follows:

Let G = corrected specific gravity
G¹ = chart reading of specific gravity
p = barometric pressure, inches of mercury
t = temperature, degrees Fahrenheit.

Then

$$\frac{1-R}{1-R^1} \quad \frac{29.92\ (t+460)}{520t} = 0.05754\ \frac{t+460}{p}$$

The instrument can be checked for accuracy by opening the inlet cock to the atmosphere and allowing the recording pen to read unity. If the pen does not indicate the gravity of the air as unity, the counterweight should be adjusted.

Acme Recording Gravitometer

The principle involved in the construction and operation of the Acme Recording Gravitometer is that of obtaining the buoyancy of gas inclosed in a container which is surrounded by the atmosphere.

The apparatus consists of a galvanized sheet-iron float having a capacity of slightly over 6 cubic feet and of approximately cubical dimensions except the top, which is shaped like a roof. The float is hung on knife edges to one end of a balance bar, and the weight of the float is balanced by a large weight on the other end of the balance bar. The fulcrum for the balance bar is constructed of steel knife edges. In operation, gas passes through the float continuously from a suitable supply-main pressure connection and out of the float to the atmosphere. The buoyancy of the gas in the float is balanced by the buoyancy of a wooden compensation stick, which is partly immersed in mercury. The compensation stick is attached to the opposite side of the balance bar from the float. Submerging enough of the compensation stick so that its buoyancy balances the gas buoyancy in the float rotates the balance bar through an angle which causes the recording pen to move to a point on the chart and indicate directly the specific gravity.

The instrument first is calibrated with air by balancing the float when it is filled with air and noting the reading on the recording chart. If this reading is unity, then when the bulb is filled with gas, the direct reading of the specific gravity is obtained.

The instrument is constructed so that a correction can be made mechanically for temperature variation. Near the fulcrum and in the same plane with the balance arm and at an angle of about 85 degrees to it, a small beam carrying an adjustable weight nut is fastened to the balance arm. This nut is adjusted to compensate for temperature change.

Accuracy of Measurements of Gravities With the Different Methods

Gravity Bottle Apparatus

The effusion type of apparatus for determining specific gravity of gas is affected by several variables that introduce errors in the results. The apparent specific gravity as determined by this method can be varied within rather wide limits by changing such conditions as the shape and size of the orifice, the effusion pressure, and the confining medium. The Bureau of Standards, in their study of the accuracy of the instrument, found that results in error by more than 10 per cent were not unusual and that it was necessary to observe carefully precautions in construction and use to secure results accurate to 2 per cent. These results have been found correct in measurements made by the Bureau of Mines in the course of some of their experimental study. It has been noticed that a calibration factor can be obtained for a tip in a gravity bottle by checking the gravity balance. However, if the tip is changed, a recalibration is necessary because the two different tips will not record the same results. At its best, the gravity bottle determinations, even after precaution in construction and use, are only approximate results and serve where relative values only are needed, as in control work. The results are not accurate enough for a basis of buying and selling gas.

Gravity Balance

The balance type of apparatus is preferable for use for accurate determinations of specific gravity. There are not as many variables affecting it as the effusion apparatus, and the principal precautions that have to be observed are mechanical construction features. As shown by the Bureau of Standards' investigative work, and results in the field work of the Bureau of Mines, as well as gravity determinations by operating gas companies, the balance is more reliable where high accuracy is desired.

Both the Edwards' balance and the Pierce improved balance are designs using the same principle but there are several construction features in the Pierce balance that makes it preferable for use. It is larger and the experimental error in measuring the buoyant effect is decreased. Also, the zero balance readings are obtained with the balance beam on the beat rather than at a standstill. This makes the readings more sensitive and eliminates a possible personal error. Probably one of the best features of the Pierce balance is the support inside the case for the balance beam so that the knife edges are not in contact when the balance is being transported or when it is not in use.

The accuracy of the gravity determinations depends to some extent upon the accuracy of the pressure readings on the mercury manometer. With one-tenth-inch divisions on the pressure scale, it is possible to check gravities to the third decimal and within four or five places in the fourth decimal when the Pierce improved balance is used.

Recording Gravitometer

The recording gravitometer is desirable when a continuous record of gas density is desired. The results, of course, are accurate only as closely as the charts can be read. Also the instruments should be calibrated frequently against a gravity balance.

Both the Precision and Acme Gravitometers have been found fairly accurate for continuous records of specific gravity. The Precision instrument shows quickly any change of gas density while the Acme Gravitometer will not show a change in less than 10 minutes and at times the change may not affect the recording mechanism for some time. Over a period of time, a good average of the density is obtained. The time lag can be adjusted from 10 to 30 minutes according to setting the rate of flow of gas through the attached sight-feed.

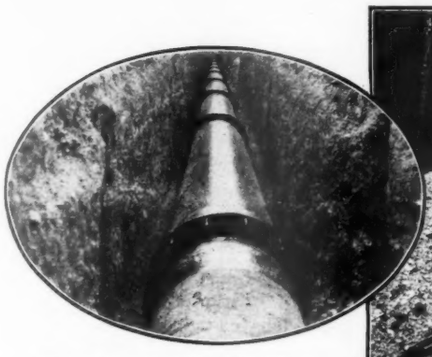
Other Methods

One of the oldest methods for determining the specific gravity of gas is by analyzing the gas chemically and calculating the specific gravity from the results of the analysis. A chemical analysis shows that natural gas consists principally of methene, ethane, nitrogen, carbon dioxide and oxygen. The rest is residue consisting of small amounts of the higher hydrocarbons, helium, hydrogen sulphide, and possibly other gases. In determining the gravity, a combustion analysis is made of the percentages of methane, ethane, nitrogen, carbon dioxide, oxygen and residue and from these data the gravity is calculated.

The specific gravity calculated from a combustion analysis is not accurate enough to be used as a basis for buying or selling gas. There are possible errors both in the actual analysis and in the formula used to calculate the gravity. The results probably vary within about the same limits of accuracy as determinations with a gravity bottle.

Combination Orifice-Capillary Tube

A description of a specific gravity apparatus that involves an orifice and capillary tube in series was given in Industrial and Engineering Chemistry, Vol. 15, No. 4, page 358, in April, 1923. The principle of its construction is based upon two flow theories: (1) when a fluid flows through an orifice, the differential pressure varies with the specific



20" Water line coated with Biturine. New Cornelia Copper Co., Arizona.

World's largest natural gas line coated with Biturine. Inter-State Gas Co.

U. S. CORROSION BILL $1,000,000.00 ANNUALLY

Big savings possible with proper prevention methods

The enormous annual cost of fighting pipeline corrosion is one of the biggest present day problems confronting operators. The destructive action of moisture, acids and alkalis in the soil and electrolysis can only be overcome by the application of a tough protective coating impervious to these harmful agents.

Biturine Enamel is just such a corrosion preventative. For more than 16 years leading operators have found it to give perfect satisfaction under the most trying conditions.

Biturine Enamel is a complete pipe coating. It is applied hot and it requires no wrapping. Extremely tough but not brittle. Absolutely impervious to corrosive elements.

Biturine Enamel is manufactured by Hill, Hubbell & Company as one of a special line of paints for the oil industry. Biturine Enamel is supplied with directions or applied by the manufacturers under contract. Foreman furnished, if desired.

Valuable practical data and specifications free on request.

HILL HUBBELL & COMPANY

Manufacturers of

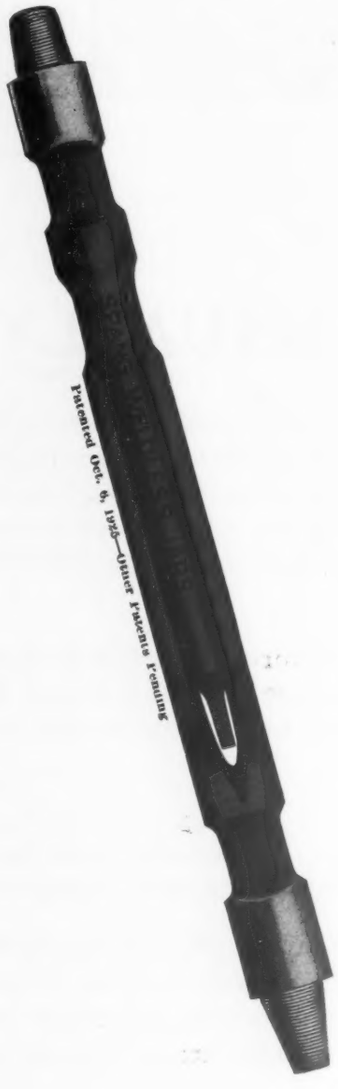
Highest Grade Technical Paints and Pipe Line Coatings. Factories at SAN FRANCISCO and TULSA

331 W. Eleventh St.
LOS ANGELES
2412 First Ave. S.
SEATTLE

1006 Washington Ave.
HOUSTON
51 First Street
PORTLAND

15 Moore St.
NEW YORK CITY
600 E. Lombard St.
BALTIMORE

SAFETY

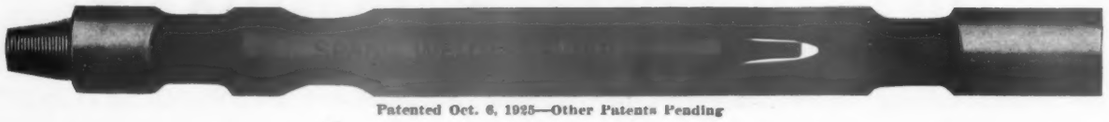


One large company (*name on request*), **who recorded accurately the service rendered by their tools recently reported to us that in a certain district, they had drilled 611,249 feet, using TWO-PIN SPANG WELDLESS JARS, with complete satisfaction. This, and many other similar records, tend to conclusively prove that SPANG WELDLESS JARS more closely approach perfection than any other jar made.**

Are you using the safest jars made?

Spang and Company
BUTLER, PENNA.

Sold at All Leading Supply Houses



Patented Oct. 6, 1925—Other Patents Pending

gravity of the fluid, other factors remaining the same; and (2) when a fluid flows through a capillary tube at a low rate, the differential pressure is a function of the viscosity, and independent of specific gravity.

In operation, the gas flows through an orifice and a capillary tube in series; the differential pressure across the capillary tube being kept constant and the differential across the orifice being taken as a function of the gravity. A scale is arranged so that the gravity is read direct.

The accuracy of gravity determinations with this method depends upon the assumption that the viscosities of all natural gases are the same. Experimental study has indicated that different gases do not have the same viscosity. In the near future, the Bureau of Mines hopes to make a thorough study of the viscosity of natural gas in its influence on gas flow.

Data Showing Comparison

Several gases have been selected and a comparison made of the gravity determinations with, first, chemical analysis; second, the gravity balance, the third, the gravity bottle. These results are shown in Table 1. The first column shows the gravity as calculated from a combustion analysis; the second column, as determined by using the Pierce improved gravity balance; and the third column, as obtained by using the effusion method in the Schilling gravity bottle.

TABLE 1
Specific Gravity of Gas

Sample No.	Calculated From Analysis	Pierce Balance	Schilling Bottle
1		.826	.755
2		.806	.738
3		.813	.738
4		.809	.749
5		.817	.743
6		.823	.740
7		.796	.732
8	.726	.672	.642
9	.799	.787	.732
10	.797	.762	.721
11	.818	.819	.767
12	.773	.764	.716
13	.782	.778	.730
14	.785	.754	.722
15	.821	.796	.742
16	.711	.666	.641
17	.827	.824	.791
18	.844	.847	.804
19	.827	.814	.779
20	.784	.791	.751

As shown in this table, the gravities as determined by calculation from the chemical analysis vary both above and below the gravities obtained with the gravity balance. The gravities obtained with the gravity bottle are less than the balance gravities; the difference varying from 3.8 to 10.1 per cent.

SPEAKING OF OIL FIELDS, WHAT CONSTITUTES AN OIL FIELD?

By James McIntyre

What is an oil field?

Is Seminole a "field" or an "area"?

If Seminole is a field, and not simply a number of pools, then why not a Los Angeles Field.

If we admit a Los Angeles Field, then Seminole has a long way to go to break all field production records.

The Los Angeles Field, made up of six closely grouped pools, Santa Fe Springs, Long Beach, Los Angeles-Salt Lake, Montebello, Torrance and Whittier, produced in September, 1923, a total of 17,347,508 bbls., or a daily average of 578,250 bbls. for the month.

On the day this was written, the Seminole Field, made up of five pools, or one less than the Los Angeles Field, but more widely scattered, produced 426,250 bbls., or 152,000 bbls. a day less than the daily average for a month in the Los Angeles Field.

The daily average production in September, 1923, of the various pools making up the Los Angeles Field was as follows:

Santa Fe Springs	314,663
Long Beach	240,918
Los Angeles-Salt Lake	3,075
Montebello	10,489
Torrance	7,417
Whittier	1,668
Total	578,250

The production of the pools making up the Seminole Field on Thursday, June 29, was as follows:

Bowlegs	180,871
Seminole City	102,590
Earls oro	98,917
Searight	33,831
Section 1-7-6	10,041
Total	426,250

Bradford, Glenn Pool, Towanda, Burbank, Tonkawa, Smackover, Mexia, Powell, Spindletop, Salt Creek and other great producing fields east of California were not made up of scattered pools. Each was a unit, a continuous body of producing territory.

If the pools of the Seminole area were rated separately, as they were in the Mexia fault area and the Los Angeles area, it would be found that none of them has yet reached Cushing's production peak, or that of Smackover or Powell, nor has any of them reached the peak of Santa Fe Springs or Long Beach in the "Los Angeles Field."

However, Seminole may go down in history as a field because by common consent it was so designated from the beginning, while the big pools of the Los Angeles area will continue to be regarded fields and not as pools that made up a field.

Purely as a sporting proposition, the production palm should be handed to the Los Angeles Field as a producing area until the Seminole area piles up a combined production that exceeds the Los Angeles peak.

NO CHEAP OIL FROM COAL

In the course of his presidential address to the British Society of Gas Industries, Viscount Ednam said he believed coal would take the place of oil in all forms of larger power plants now using oil. "The oil interests of this country, the apparent significance of oil as a factor in national defense, and the growth of the motor car industry have," he said, "resulted in an unjustifiable belief that the age of coal is past, and that oil alone must be the fuel of the future. I do not believe that real facts justify such a conclusion in the least." There was still some distance to go before they could take up commercially any of the low-temperature carbonization of coal processes on which experiments were being conducted with some success. If a market for the main products of these processes—semicoke—could not be maintained, the low-temperature process at once became uneconomical. Neither did he yet see the possibility of a method of turning coal into liquid fuel at a cheap cost.

CARBURETOR FOR KEROSENE

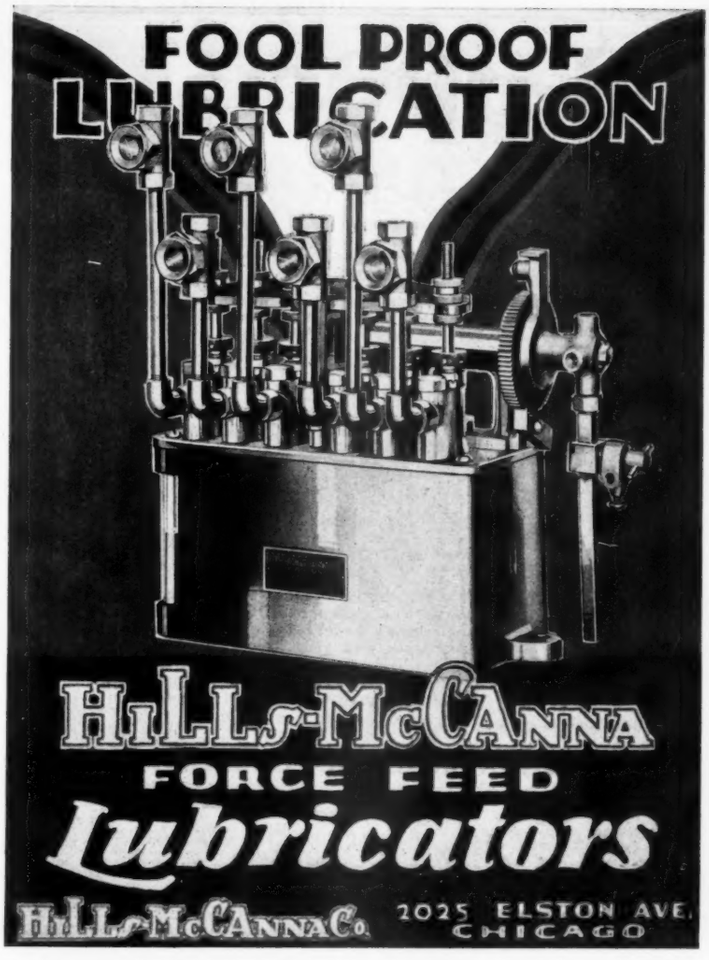
A new carburetor for automobiles in which kerosene and other fuels with higher specific gravities than gasoline can be used has been constructed by a Swedish firm at Malmo, Sweden, according to the American consulate general at Stockholm. A system of plates in the intake manifold improves the atomizing, it was reported. Tests are reported to have been made successfully at a cost of 4.8 cents per 6 miles.

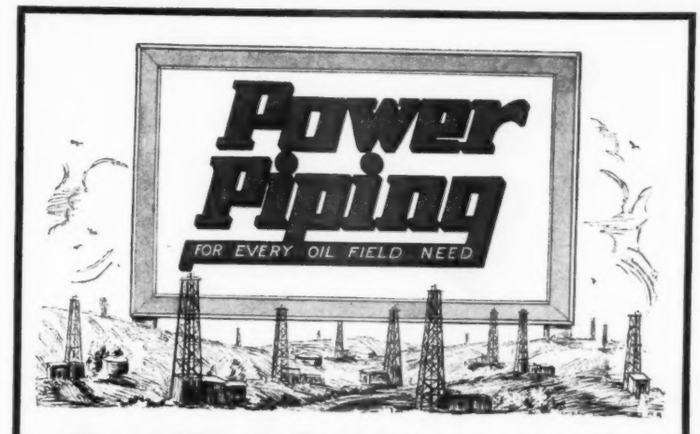
ARGENTINE OIL LAW

The Argentine Congress is discussing a plan for the nationalization and exploitation of petroleum fields that may be discovered in the future.

ECUADOR OIL TO CANADA

The Anglo-Ecuadorian Oil Fields, Ltd., exported 9,579 tons of crude petroleum to Halifax during March, 1927.





Practical Solutions to Oil Field Problems

YOUR problem may be "peculiar"—you may feel its solution to be costly and complex—yet in just such cases *Power Piping* service proves itself! We can often meet the situation with a practical plan that will be found economical as well as efficient.

POWER PIPING CO. • PITTSBURGH

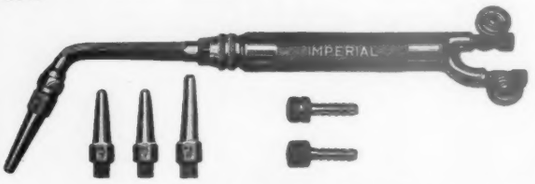
10" welded manifold, all seamless tubing, for high-pressure steam service

Imperial

OXY-ACETYLENE
WELDING and CUTTING EQUIPMENT

Special Equipment for Oil Field Work

Here is an Imperial Welding Torch especially designed for work on pipe lines in oil fields, in wells and for work in congested places. It measures only 14 inches over all, yet it embodies every feature that has made Imperial torches the favorites everywhere.



Write for Complete Catalog

The Imperial Portable Acetylene Generator has proved its worth in the oil fields. It can easily be transported along the line as work progresses and generates pure acetylene gas for welding at a fraction of the cost of gas in cylinders. It is entirely trouble-proof, having no clock-work, weights or pulleys, yet it is fully automatic in operation.

THE IMPERIAL BRASS MFG. CO.
1208 W. Harrison St. Chicago

Distributors

Kansas City Oxygen Gas Co. Kansas City, Mo.
Jos. T. Ryerson & Son Chicago, Ill. and St. Louis, Mo.
Sligo Iron Store Co. St. Louis, Mo.
Massey Hardware Co. Wichita, Kan.

"A REAL OIL COUNTRY BELT"

O AND G

OIL GAS

Pumping—Drilling — Compressor
Double-Stitched

BELTS

RUGGED — DURABLE

Built to successfully withstand the hardest oil field service—growing in popularity daily

Manufactured by

IMPERIAL BELTING CO., Chicago

Sold by

OIL WELL SUPPLY CO.

In All Fields

NEW LOCATIONS IN TEXAS PANHANDLE AND NORTH AND WEST TEXAS FIELDS

TEXAS PANHANDLE

Gray County

M. J. Delaney and others' No. 1 W. Jackson, 330 feet south and east of the NE cor. of the E-half of SW of Section 88, Block 2-B, H. & G. N. Survey. Roxana Petroleum Corp.'s No. 1 Combs and others, 330 feet south and east of NW cor. NE of Section 34, Block 3, I & G. N. Survey.

Hutchinson County

Pure Oil Co.'s No. 6 Johnson Bros.-B, 1,750 feet north and 320 east of SW cor. of north 160 acres of south 320 acres of Section 70, Block 46, H. & T. C. Survey. Tyler Oil Co.'s No. 1 J. Q. Best, 330 feet south and west of NE cor. of north 60 acres of Section 14, Block 2-Y, T. T. R. R. Survey.

Lipscomb County

Caltex Oil Co.'s No. 1 R. C. Bradford, center of NE Section 899, Block 43, H. & T. C. Survey. Ozark Drilling Co.'s No. 1 H. Frass, 330 feet south and west of NE cor. SE, Section 106, Block 10, H. T. & B. Survey.

Potter County

Amarillo Oil Co.'s No. 1 R. B. Masterson-B, center of Section 43, Block 3, G. & M. Survey.

NORTH CENTRAL AND WEST TEXAS

Archer County

G. S. Anderson's No. 3 Dr. E. M. Hughes, 300 feet north and 150 feet east of SW cor. of the S-half of SE Section 16, League 3, Denton County School Land, A-117. M. Blair's No. 1 H. S. Griffin, 4,550 feet south and 1,550 feet west of NE cor. of Section 20, Palo Pinto County School Land, A-339. Simms Oil Co.'s No. 11 J. H. Turbeville-B, 150 feet south and east of NW cor. of south 20 acres of west 40 acres of Robert Carson Survey, No. 142 and on their 100-acre lease. United Production Co.'s No. 2 J. J. Perkins and others, 150 feet south and 1,050 feet west of NE cor. NE Section 22, League 3, Denton County School Land, A-117. Barbee and others' No. 1 R. Campbell, 150 feet south and east of NW cor. of Section 1, G. P. Meade Subdivision out of L. M. Pasture Survey. Roxana Petroleum Corp. & Sun Oil Co.'s No. 2 W. R. Farmer-B, 6,760 feet north and 1,600 feet east of SW cor. of Bell County School Land, A-12. Sun Oil Co.'s No. 1 Abercrombie & Taylor-D, 150 feet north and east of SW cor. of east 65 acres of north 125 acres of Section 12, Club Ranch Subdivision. The Texas Company's No. 1 Abercrombie & Taylor, 1,455 feet north and 1,210 feet west of SE cor. of Section 12, same subdivision.

Brown County

Arkansas Fuel Oil Co.'s No. 1 R. A. Thompson, 150 feet south and east of NW cor. of Section 19, H. T. & B. Survey. J. E. Beale and others' No. 1 C. A. Cavel, 760 feet north and 150 feet east of SW cor. of Section 18, same survey. J. E. Beale and others' No. 1 R. A. Thompson 150 feet south and west of NE cor. of R. A. Thompson's 200-acre tract out of Gracia Montex & Durar Survey, No. 160. L. G. Bradstreet and others' No. 9 W. A. Stout, 1,110 feet north and 450 feet east of SW cor. of Lot 2, W. B. Smith Survey, No. 153. Empire Gas & Fuel Co.'s No. 1 W. A. Leslie, 150 feet north and west of SE cor. of the N-half SE, Section 36, H. T. & B. Survey. J. T. Hervy's No. 1 Mrs. S. J. Sleph, 150 feet north and west of SE cor. NE, Section 31, same survey. Humble Oil & Refining Co.'s No. 1 Hamp Byler, 150 feet south and 470 feet west of NE cor. of south 80 acres of north 160 acres of Hamp Byler's tract out of T. & N. O. Survey, No. 43. Humphrey Brothers' No. 1 C. A. Cavel, 1,060 feet north and 150 feet east of SW cor. of Section 18, H. T. & B. Survey; No. 1 W. D. McCully, 920 feet south and 150 feet east of NW cor. SW Section 18, same survey. Tom Lowrey and others' No. 1 C. N. Keeler, 150 feet north and east of SW cor. of south 60 acres of C. N. Keeler's 160-acre tract out of Jose Podilla Survey, No. 646. George Parker's No. 1 J. F. Weedon, 600 feet north and 1,200 feet west SE cor. J. F. Weedon's 80-acre tract out of J. Van Winkle Survey No. 64. Selby Oil & Gas Co.'s No. 5 H. J. Ellis, 1,200 feet south and 155 feet east of NW cor. of H. J. Ellis' 130-acre tract out of S. A. & M. G. Survey, No. 3, A-850. Simms Oil Co.'s No. 1 C. A. Coval, 125 feet north and 150 feet east of SE cor. of south 15 acres of SW Section 18, H. T. & B. Survey. Sinclair Oil & Gas Co.'s No. 10 J. W. Shore, 150 feet south and 2,005 feet east of NW cor. of their 80-acre lease out of J. C. Ryan Survey, No. 636. The Texas Company's No. 20 Roy Hickman, 750 feet north and 1,680 feet west of SE cor. of their 160-acre lease out of Thomas Benson Survey, No. 783; No. 74 Mrs. R. M. Lowe, 1,275 feet north and 345 feet east of SW cor. George Stubblefield Survey, No. 622; No. 75, 1,275 feet north and 645 feet east of SW cor. of the same survey; No. 76, 1,275 feet north and 960 feet east of SW cor. of the same survey. Wentz Oil Corp.'s No. 1 J. J. Anderson, 150 feet south and 1,170 feet west of NE cor. of J. J. Anderson's 145-acre tract out of C. B. Banister Survey, No. 626, A-1,458; No. 1 R. V. Mitcham, 150 feet north and east of SW cor. NE of Section 42, H. T. & B. Survey; No. 24, J. W. Shore, 1,950 feet south and 750 feet east of NW cor. of J. W. Shore's 320-acre tract out of Charles B. Betts Survey, No. 625; No. 25, 960 feet south and 450 feet west of NE cor. of west 240 acres of the same survey; No. 26, 2,310 feet south and 770 feet west of NE cor. of west 240 acres of the same survey; No. 27, 2,010 feet south and 770 feet west of NE of west 240 acres of the same survey. John W. Chaste Int.'s No. 1 C. M. Carter, 660 feet south and 1,320 feet east of NW cor. of Lot 5, Charles Messer Survey, No. 127. R. H. Lightfoot's No. 1 Mrs. M. L. Cleveland, 150 feet NW of SE line and 210 feet SW of NE line of Mrs. M. L. Cleveland's 345-acre tract out of Henry Kraber Survey, No. 19. S. M. Russell's No. 3 T. W. Oden, 1,170 feet south and 1,880 feet east of NW cor. of Peter Hudson Survey, No. 37. Sorrells & Work's No. 1 McCaughy, 700 feet north and 450 feet east of SW cor. of Section 21, H. T. & B. Survey.

Callahan County

Beans & Kingswood's No. 2 I. N. Jackson, 280 feet north and 320 feet east of SW cor. NE SW, Section 14, E. T. R. R. Survey. C. O. Moore & Barber's No. 1 J. W. Harris, center SW SW Thomas Harlow Survey, No. 197.

Coleman County

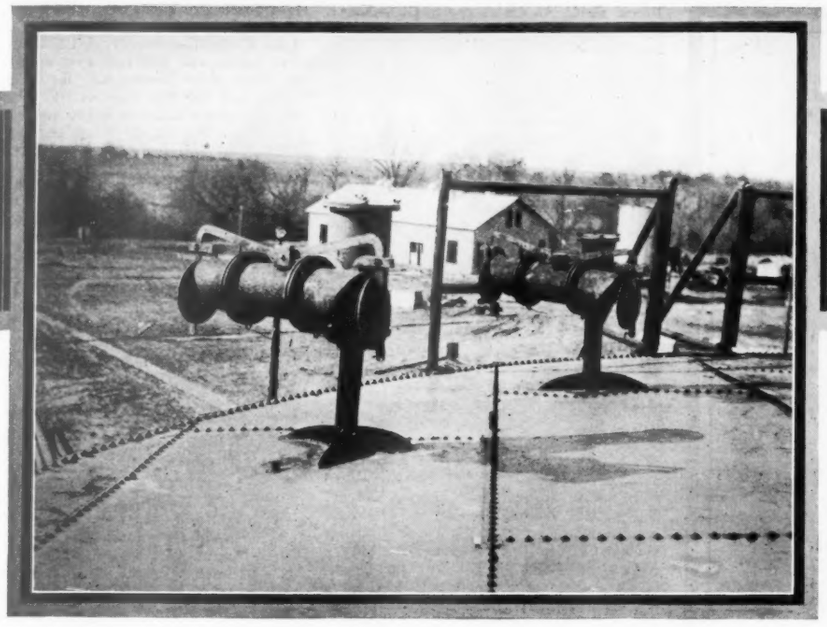
Douglas Oil Co.'s No. 1 T. Weaver, 660 feet south and 150 feet east of NW cor. of Lot 14, J. R. Foley Survey, No. 499. John W. Choate Int.'s No. 1 W. R. Stewart, 825 feet south and 1,055 feet NW cor. W. R. Stewart's 200-acre tract out of Jefferson George Survey, No. 246. Dixon & Mitcham's No. 1 W. T. Martin, 650 feet south and 600 feet east of NW cor. of W. T. Master's 120-acre tract out of J. Riner Survey, No. 242, A-571. Senior Petroleum Co.'s No. 1 Charles Haynes, 1,220 feet south and 720 feet west of NE cor. of Charles Haynes 170-acre tract out of Pleasant Young Survey, No. 494.

Cooke County

Lynch, Stahl and others' No. 1 Lynch Stahl and others, 1,750 feet north and 650 feet west of SE cor. of Section 13, Thomas Scott Survey, A-900, being 875 feet north and 57 degrees 28 minutes west of SE cor. and 95 feet north and 32 degrees and 32 minutes east of SW line of their 14-acre tract. Oil Operators Trust Co.'s No. 1 J. Koelzer, 1,410 feet north and 350 feet east of SW cor. of J. Koelzer's 80-acre tract out of Section 13, Thomas Scott Survey, A-900.

Crane County

Landreth Production Co.'s No. 9 State Land, 200 feet south and 2,310 feet west of SE cor. of Section 46, Block 30, University Land and located in Section 201,



A Flame Arrestor on every tank will—

1. Reduce Fire hazards
2. Reduce Insurance ~ Premiums

Protect your tanks against EVAPORATION with Liquid Safety Valves, the SAFEST, MOST ECONOMICAL safety valves on the market; but don't overlook FIRE—the cause of enormous storage losses.

Specify FLAME ARRESTORS with every SAFETY VALVE installation and KNOW beyond doubt that you have COMPLETELY PROTECTED your valuable storage against unforeseen fire accidents. They are cheap to buy and install, yet render protection against fire absolutely certain. Fire insurance inspectors recommend them, and your insurance premiums will be considerably less if you use them on every tank.

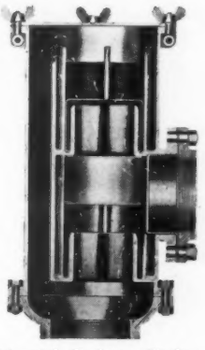
Tank Equipment for every purpose is made and sold by Westcott & Greis, whose tank experts are available for consultation at any time, without obligation. Ask to see one when you need equipment.

WESTCOTT & GREIS, Inc.

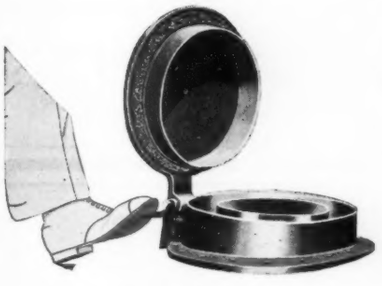
Dallas TULSA Los Angeles

WESTCOTT & GREIS

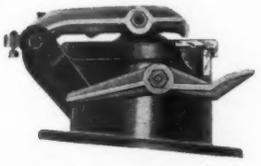
IMPROVED CONSERVATION & SAFETY EQUIPMENT



Liquid Safety Valve



Positive Thief Hatch



Mechanical Manhole Cover

Sheave Bracket

WESTCOTT & GREIS

CONSERVATION AND SAFETY

New
25th Edition

STANDARD OIL BOOKLET

This Booklet contains description of properties, annual reports for 1926, dividend rates, price ranges and other important information relative to this group of companies.

Copy on request

CARL H. PFORZHEIMER & CO.

(Specialists in Standard Oil and Miscellaneous Oil Securities)

25 Broad Street New York, N. Y.

OTHER "PENBERTHY" PRODUCTS

Ejectors
Cellar Drainers
Oil Gages
Water Gages
Oil Cups
Grease Cups, Etc.

PENBERTHY PRODUCTS

Special High Pressure Automatic Injector

Write For Catalog

Owing to the increasing demand in the oil fields for injectors to operate on higher pressures, this high pressure injector is recommended where boilers are operated at pressures to 200 pounds.

PENBERTHY INJECTOR COMPANY
Established 1886

Canadian Plant:
WINDSOR, ONT., CAN.

1260 Holden Ave.,
DETROIT, MICH.

Block F, C. C. S. D. & R. G. N. G. Survey; No. 10, 200 feet south and 2,970 feet west of SE cor. of Section 46, Block 30, University Land and located in Section 201, Block F, same survey.

Crockett County

George Anderson and Marland Oil Co.'s No. 1 University Land, 1,320 feet north of SW cor. and located on the west line of Section 2, Block 50, University Land. Humble Oil & Refining Co.'s No. 3 L. P. Powell-B, 150 feet north and west of SE cor. of the W half of Section 62, Block BB, G. C. & S. F. Survey.

Eastland County

Belva Oil Co.'s No. 2 F. Good, 650 feet north and 200 feet west of SE cor. of F. Good's tract out of J. R. Stubblefield Survey. Pete Hoffman's No. 2 J. T. Poe, 250 feet north and 320 feet east of SW cor. of east 15 acres of south 75 acres of J. T. Poe's 155-acre tract out of Section 15, Block 3, H. & T. C. Survey; No. 1 Stewart, 300 feet north and west of SE cor. SE, Section 33, Block 3, H. & T. C.; Independent Oil & Gas Co. and others' No. 1 J. T. Poe, 250 feet south and 320 feet east of NW cor. of south 60 acres of J. T. Poe's 155-acre tract out of Section 15, Block 3, same survey. McLester Oil Co. and others' No. 3 P. Thorp, 1,250 feet north and 260 feet east of SW cor. of P. Thorp's 65-acre tract out of J. R. Stubblefield Survey. Texas Pacific Coal & Oil Co.'s No. 1 J. C. Swift, 330 feet south and east of NW cor. of west 160 acres of east 320 acres of J. Swift Survey, No. 35.

Floyd County

Exploration Co.'s No. 1 Matador Land & Cattle Co., center of Section 120, Block 3-D, D. & S. R. R. Survey.

Grayson County

Simpson & Fell's No. 1 G. W. Wall, 900 feet south and 700 feet west of NE cor. of G. W. Wall's 120-acre tract out of James Ingram Survey, A-617.

Hale County

Exploration Co.'s No. 1 Goodman, center of SE Section 1, Block O, D. & S. R. R. Survey.

Haskell County

Marland Oil Co. & Texon Oil & Land Co.'s No. 1 W. E. Clark, 1,320 feet due west of SW cor. of C. Netherland Survey, A-822, and located in C. B. Clough Survey, A-463.

Howard County

F. H. E. Oil Co. and Dora Roberts' No. 1 Dora Roberts, 150 feet north and west of SE cor. NW, Section 137, Block 29, W. & N. W. Survey. Vitex Oil Co.'s No. 1 R. H. Clay, 1,560 feet north and 240 feet west of SE cor. of Section 126, Block 29, same survey.

King County

The California Co.'s No. 1 Spike's Farm No. 2, 1,725 feet south and 15 feet east of NW cor. of Section 24, R. B. Masterson Survey.

Montague County

Pure Oil Co.'s No. 1 Mrs. S. F. Loy and others, 2,100 feet south and 200 feet west of the most northerly NE cor. of Mrs. S. F. Loy and others' 210-acre tract out of William Donoho Survey, A-178. The Texas Company's No. 3 E. J. Bouldin, 150 feet north and east of SW cor. of west 80 acres of E. J. Bouldin's 200-acre tract out of J. Chambliss Survey, A-123; No. 4 R. W. Cunningham-A, 85 feet south and 260 feet east of NW cor. of J. R. Norton Survey, A-573, being 150 feet north and east of SW cor. of their 40-acre lease; No. 2 R. W. Cunningham and others, 385 feet south and 320 feet east of NW cor. of J. R. Norton Survey, A-573 and on their 60-acre lease; No. 1 Mrs. A. B. Hinton, 150 feet north and west of SE cor. of north 100 acres of east 245 acres of north 495 acres of Mr. A. B. Hinton's 1,055-acre tract out of Alexander Coats Survey, A-129; No. 4 N. J. Howard and others-B, 670 feet north and 150 feet east of SW cor. of their 80-acre lease "B" out of J. Chambliss Survey, A-123; No. 4, N. J. Howard and others-C, 150 feet north and west of SE cor. of their 40-acre "C" lease out of the same survey; No. 4 J. W. Maddox-B, 1,450 feet north and 635 feet west of SE cor. of J. W. Maddox's 335-acre tract out of John Chambliss Survey, A-123, being 150 feet south and 685 feet west of NE cor. of their 50-acre lease; No. 5, 2,050 feet north and 2,050 feet west of SE cor. of J. W. Maddox's 335-acre tract out of John Chambliss Survey, A-123, being 150 feet north and 795 feet east of SE cor. of their same lease; No. 6, 1,350 feet north and 150 feet west of SE cor. of J. W. Maddox's 335-acre tract out of John Chambliss Survey, A-123, being 285 feet south and 150 feet west of NE cor. of their same lease; No. 13 J. W. Maddox-D, 150 feet south and 940 feet west of NE cor. of Lot 11, and located in C. W. Thompson Survey, A-741. Woods, Benton, Lesh & McCall's No. 2 R. W. Cunningham and others, 385 feet south and 770 feet east of NW cor. of J. R. Norton Survey, A-573, being 150 feet south and 450 feet NW cor. of their 60-acre lease.

Pecos County

Allsman & Bell's No. 2 Pecos River Bed, 655 feet south and 565 feet east of NE cor. of Section 46, Block 1, I. & G. N. Survey and located in the bed of the Pecos River. McMan Oil & Gas Co. and Marland Oil Co.'s No. 1 I. G. Yates, 330 feet north and west of NE cor. of Section 35, and located in Section 34½, Block 194, G. C. & S. F. Survey.

Wichita County

H. Cook and R. Reeder's No. 1 W. H. Chilson, 150 feet north and west of SE cor. of west 40 acres of south 90 acres of Section 3, W half of Margaret Ramsey Survey, A-471. Bridwell & Mayfield's No. 1 W. B. Throckmorton, 750 feet north and 150 feet east of SW cor. of NW Section 1, J. F. Torrey Survey, A-312. R. R. Clark and others' No. 3 A. A. Honaker, 750 feet south and 150 west of NE cor. of east 100 acres of A. A. Honaker's 165-acre tract out of Section 11, A. B. & M. Survey, A-339. W. Hammon and others' No. 9 S. M. McCarty, 340 feet north and west of SE cor. of west 20 acres of east 40 acres of south 70 acres of north 170 acres of McCarty's 230-acre tract out of Sam O. Fowler Survey, A-78; No. 10, 150 feet south and east of NW cor. of west 20 acres of east 40 acres of south 70 acres of north 170 acres of S. M. McCarty's same tract. T. F. Hunter's No. 2 J. L. and T. J. Waggoner-B, 900 feet south and 1,000 feet east of NW cor. of north 160 acres of west 200 acres of M. A. Wills Survey, A-547. Mrs. R. A. Lanning and N. B. Chenault and others' No. 1 S. M. McCarty's 230-acre tract out of Sam O. Fowler Survey, A-78.

Winkler County

Southern Crude Oil Purchasing Co.'s No. 1 Ida Hendrick-D, 1,320 feet south and 2,310 feet east of NW cor. of Section 4, Block 12-B, School Land.

Upton County

Dixie Oil Co.'s No. 27 A. S. Burleson, 2,310 feet north and 330 feet west of SE cor. of Section 3, G. C. & S. F. Survey, A-212, and located in John Nidever Survey, No. 2, A-749. Pure Oil Co.'s No. 1 J. F. Lane, 330 feet north and east of SW cor. of the N half of Section 3, G. C. & S. F. Survey, A-212.

Young County

C. W. Clark and others' No. 1 H. L. Morrison, 1,350 feet north and 1,415 feet east of SW cor. of Section 159, T. E. & L. Survey. Madden & Hunt's No. 3 O. S. Perkins, 1,410 feet south and 1,930 feet east of NW cor. of Section 207, same survey. The Texas Company's No. 1 J. L. Castleman, 150 feet and 785 feet west of SE cor. of Section 72, same survey. D. A. Miller and others' No. 1 Mrs. S. E. Bowen, 270 feet south and 775 feet west of NW cor. of Paul Pier Survey, A-219, and located in Mrs. S. E. Bowen's 140-acre tract out of C. P. Heartt Survey, A-133. The Texas Pacific Coal & Oil Co.'s No. 3 G. L. Donnell, 765 feet south and 150 weet west of NE cor. of Section 1,211, T. E. & L. Survey.

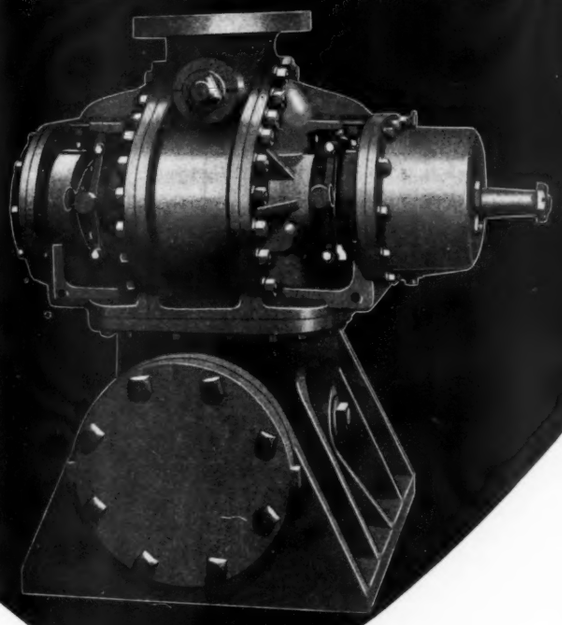
Corrected Locations

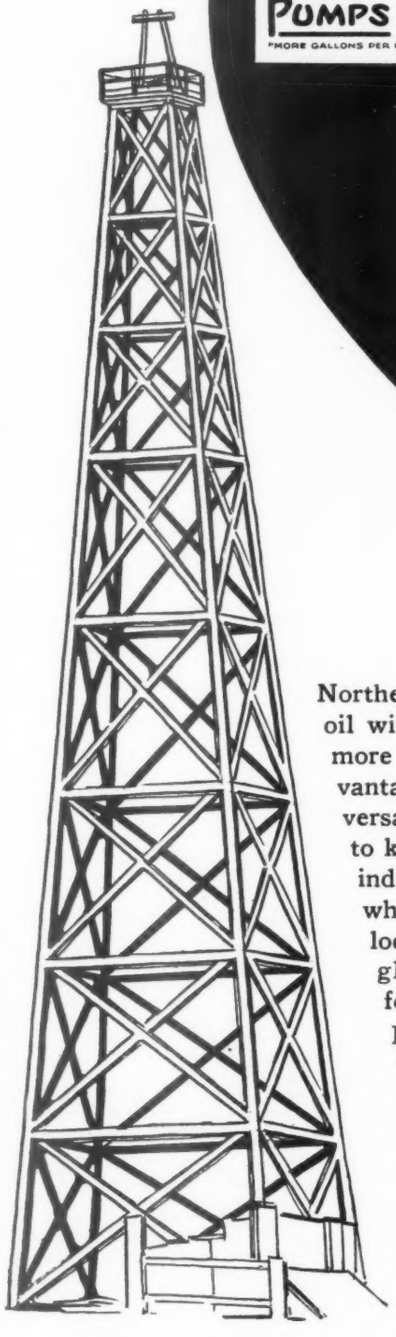
Archer County: Consolidated Oil Co.'s No. 1 Abercrombie & Taylor, 150 feet north and west of SE cor. of west 65 acres of north 130 acres of Section 12, Club Ranch Subdivision. Pandem Oil Corp.'s No. 1 T. L. Looney, 300 feet north and 2,000 feet east of SW cor. of Section 150, same subdivision. Roxana Petroleum Corp. and Sun Oil Co.'s No. 1 W. R. Farmer-B, 25 feet north and 1,600 feet east of SW cor. of Bell County School Land, A-12.

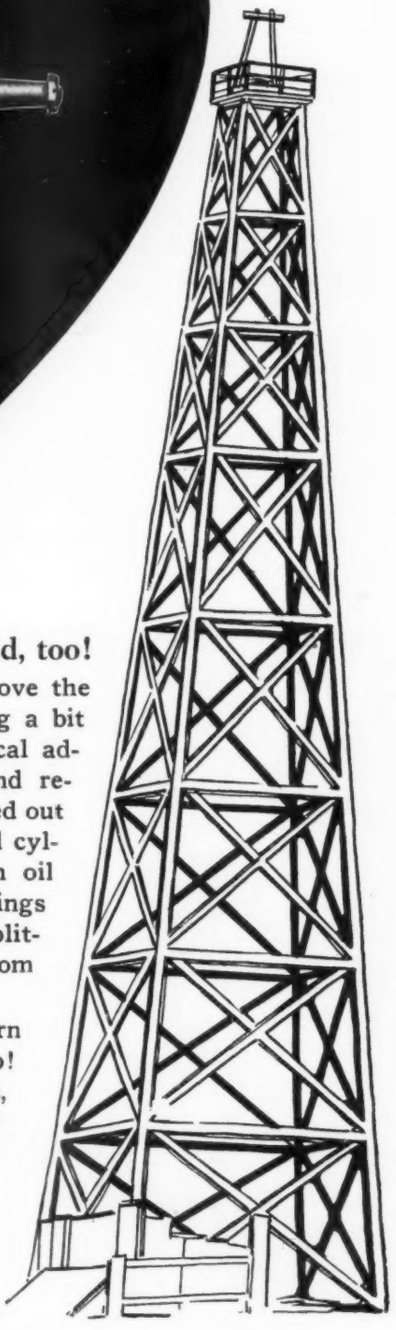
Brown County: Wentz Oil Corp.'s No. 8 J. W. Shore, 1,350 feet south and 750

Whole-hearted!

NORTHERN ROTARY PUMPS
"MORE GALLONS PER HORSE POWER"







And Strong-hearted, too!

Northerns put their hearts into pumping jobs—they move the oil without a break—steady, reliable, always delivering a bit more service than you really expect. Their mechanical advantages tell: lateral ports which prevent losses and reversals of flow—self adjusting packing strips which feed out to keep constant contact between the rotor teeth and cylinder walls—hardened steel pilot gears running in oil which drive and time the pumping rotors—roller bearings locked onto the shafts to prevent end play—handy split-gland stuffing boxes which leave plenty of hand room for quick, easy re-packing.

Back of the pump is the spirit of the Northern "Force." Whole-hearted and strong-hearted too! Loyal to the pump, loyal to Northern owners, ready, whole-heartedly, to go to any ends to give every purchaser the kind of pump satisfaction which creates loyal friends.

May we have the privilege of showing how you can profit by Northern Whole-heartedness? May we help to solve your pumping problems?

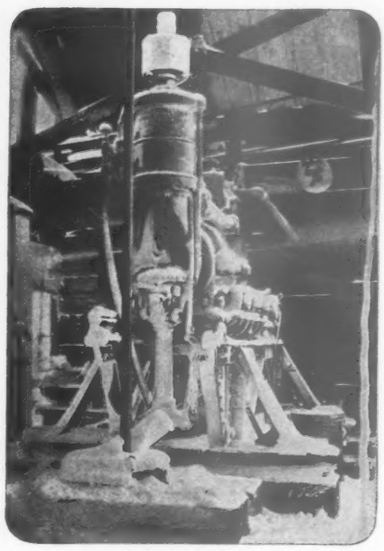
Houston, Texas
San Francisco, Calif.
Los Angeles, Calif.
Kansas City, Mo.
Mobile, Ala.
New Orleans, La.
Cleveland, Ohio
New York City, N. Y.
Salt Lake City, Utah

NORTHERN PUMP CO.

DIVISION OF
NORTHERN FIRE APPARATUS CO.
MINNEAPOLIS MINNESOTA, U.S.A.
948 Eighteenth Ave. N. E.

Montreal, Canada
Toronto, Canada
Chicago, Ill.
Pittsburgh, Pa.
St. Louis, Mo.
Tulsa, Oklahoma
Denver, Colorado
Detroit, Mich.

Diamond Drill Solves Problem at Calgary



Shallow production has been common for 12 years in the Turner Valley Field, Alberta, Canada—but until recently it has never been possible to drill into the high pressure gas production below the cap rock, and successfully complete a well.

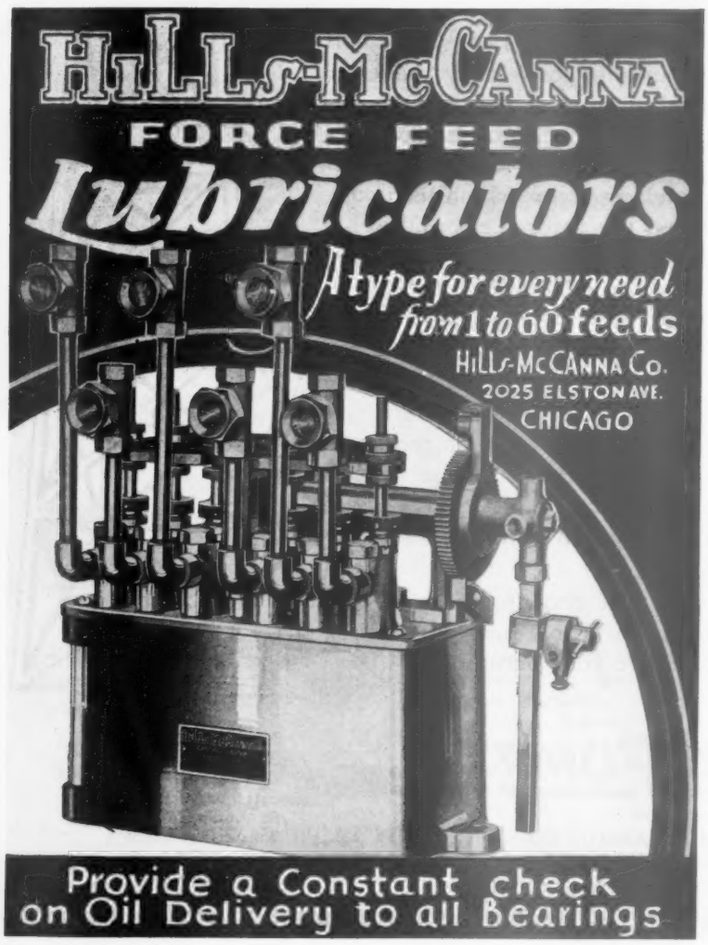
Terrific gas pressure and hard limestone made a double problem. Rigs that could stay in the hole couldn't cut the rock—and rigs that could cut the rock couldn't stay in the hole.

Three different wells were drilled into the pressure, estimated at 2500 lbs. to the inch—and in each case the tools were blown up in the hole and lost. Rapid expansion of the gas froze things up and handicapped fishing.

Until a few months ago not one well had been successfully completed—then the Illinois Alberta Oil Company solved the problem with a diamond drill. Boring down to a depth of 3500 feet with an ordinary rig, they reached the lime. To cut the hard lime and handle the gas pressure they substituted a "P-2" Sullivan Diamond Drill.

The diamond drill bored rapidly down through the hard rock, and though it had some difficulty with low temperatures, it brought in the well at 3857 feet, under control. *Write for the free 80-page handbook "Diamond Drilling for Oil."*

Sullivan Machinery Company
88 East Adams Street, Chicago



feet east of NW cor. of J. W. Shore's 320-acre tract out of Charles S. Betts Survey, No. 625.

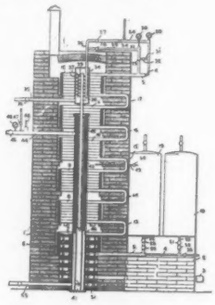
Crockett County: Young & Donnelly's No. 1 J. M. Shannon, center of Section 11, Block 9, D. & S. E. Survey.

Foard County: C. W. Clark and others' No. 1 C. L. Atkins, 350 feet south and 150 feet east of SW cor. of Section 89, Block 44, H. & T. C. Survey.

Montague County: Woods, Benton, Lesh & McCall's No. 1 R. W. Cunningham and others, 385 feet south and 6,195 feet east of NW cor. of J. R. Norton Survey, A-575, being south and east of NW cor. of their 60-acre lease.

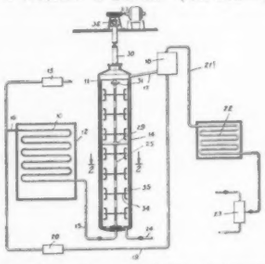
Recent Patents

1,627,937. Apparatus for Cracking and Distilling Hydrocarbon Oils. Stephen L. Tingley, Nitro, W. Va. Filed October 12, 1923. Serial No. 668,229. 18 Claims. (Cl. 196—110.)



1. A cracking and distillation apparatus comprising a furnace, a coil within said furnace for heating the hydrocarbon oil and means for supplying oil to the same, a jacket entirely surrounding said coil and means for supplying water thereto and causing it to flow in the same direction as the flow of the oil whereby it will be converted into superheated steam by the heat of the furnace and the oil progressively heated, vaporized and the vapors superheated at substantially the same progressively increasing temperatures as those of the water and is vapor the oil containing coil protected from direct exposure to the heat of the furnace.

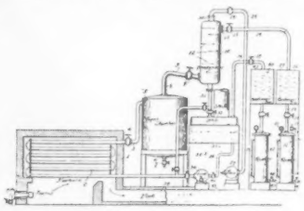
1,628,143. Treating Hydrocarbons. William S. Hadaway, Jr., New Rochelle, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Texas. Filed September 15, 1923. Serial No. 662,820. 1 Claim. (Cl. 196—135.)



Apparatus for cracking hydrocarbon oils, comprising a cracking vessel, a hollow shaft mounted therein and in communication with a source of oil supply for said vessel and rotatable spraying means adapted to receive fluid from said shaft and to be actuated by said fluid.

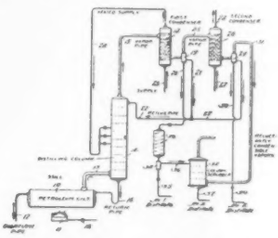
1,628,270. Process and Apparatus for Cracking Petroleum Oil. Robert T. Pollock, Boston, Mass., assignor to Universal Oil Products Co., Chicago, Ill., a corporation of South Dakota. Filed December 6, 1920. Serial No. 428,790. Renewed October 6, 1926. 17 Claims. (Cl. 196—48.)

2. A process of cracking petroleum oil, consisting in subjecting the oil to a cracking temperature under a superatmospheric pressure to cause substantial vaporization, subjecting the generated vapors to reflux condensing action by passing them directly to a reflux condenser also maintained under a superatmospheric pressure, delivering reflux condensate to a still where it is subjected to distillation at substantially atmospheric pressure to release those constituents that are of the desired predetermined endpoint, then returning the liquid portions of said reflux



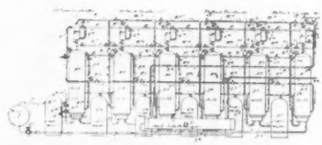
condensate to the cracking zone, and heating said atmospheric still by the flue gates from the furnace of the cracking zone.

1,628,252. Method of Refining Petroleum. Walter E. Lummus, Lynn, Mass. Filed May 21, 1923. Serial No. 640,332. Seven claims. (Cl. 196-94.)



2. The method of refining petroleum oils by separating the heavier oils from the lighter and passing the vapors of the latter through a plurality of condensers which condense and discharge condensate fractions of the vapors of different boiling points, and subjecting the uncondensed vapors from the last condenser to the absorbing action of a higher boiling of said condensate fractions.

1,627,159. Method for Treating Petroleum and Other Hydrocarbons. Carbon P. Dubbs, Wilmette, Ill., assignor to Universal Oil Products Company, Chicago, Ill., a Corporation of South Dakota. Filed November 30, 1917. Serial No. 204,526. Renewed July 16, 1923. 2 Claims. (Cl. 196—49.)



1. A process for converting petroleum into lower boiling point hydrocarbons consisting in collecting the oil in a plurality of pools and while under pressure subjecting the pools of oil to progressively increasing temperatures, continuously supplying the oil to the pool of lowest temperature and conducting the overflow from each pool to the pool of next higher temperature, condensing and collecting vapors arising from the pool of lowest temperature and removing vapors from each pool, other than that of lowest temperature, passing them through a reflux condenser associated with the pool, returning the condensed products back to the pool and forcing the remaining vapors back through the pool of next lower temperature, collecting the uncondensible gases formed in the process and passing them through the oil.

1,628,423. Art of Sweetening Hydrocarbon Oils. Max G. Paulus, Casper, Wyo., assignor to Standard Oil Co., Whiting, Ind., a corporation of Indiana. Filed May 28, 1925. Serial No. 33,501. 2 Claims. (Cl. 196—33.)

1. The method of treating sour light hydrocarbon oils, which comprises passing still gases containing hydrogen sulphide in intimate contact therewith, thereby effecting the solution of hydrogen sulphide in said oil, and subsequently subjecting the oil to the action of doctor solutions.

Have you METAL *to* PAINT? Consider these 3 points

1 The universal use of red-lead on iron and steel is the best possible proof of its value as a rust-preventive. For over a hundred years pure red-lead has been the standard protective paint for metal.

Paint made of pure red-lead and linseed oil sticks tight to metal surfaces. It forms a tough, durable, tenacious film which is insoluble in water, which is an excellent insulator, which does not crack and scale, and which is unaffected by ordinary atmospheric influences.

2 In painting new metal work, the most satisfactory and economical results are secured by applying three coats of red-lead paint. Use red-lead for the succeeding coats as well as next to the metal. When all three coats are red-lead you are sure of getting the maximum in wearing and preserving qualities.

A practice frequently followed in three-coat painting with red-lead is to use straight red-lead for the first coat, and tinted red-lead for the second and third coats. In this way a different color is obtained for each coat, thus facilitating inspection.

When the coat being applied is a different color from that last put on, it is easy for the painter or the inspector to see any skipped places.

3 The highest grade red-lead obtainable is Dutch Boy red-lead. It is pure, finely ground, highly oxidized, and obtainable in paste or liquid form. The liquid comes in the natural orange-red for next-to-metal coats and in greens, browns and black for finishing coats. The paste comes in the orange-red and can be shaded to dark colors.

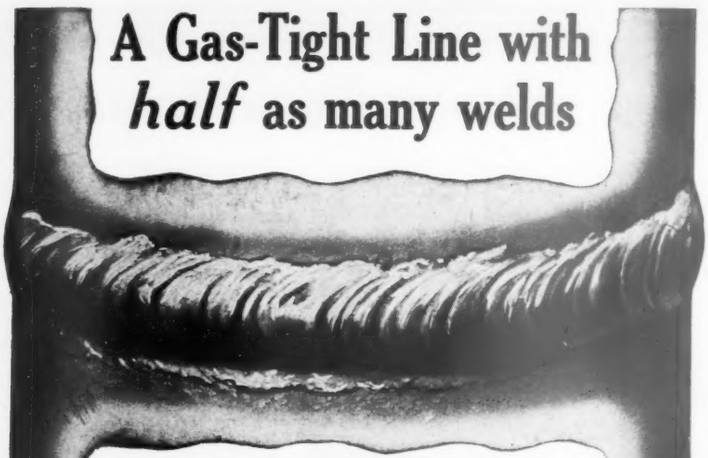
Whenever you encounter an unusual painting problem you will find our special technical staff ready to serve you. Their wide experience and exhaustive knowledge of painting enable them to give valuable assistance. Write them in care of our nearest branch.

NATIONAL LEAD COMPANY

New York, 111 Broadway — Boston, 800 Albany St.
Buffalo, 116 Oak St. — Chicago, 900 West 18th St.
Cincinnati, 659 Freeman Ave. — Cleveland, 820 W. Superior Ave.
St. Louis, 722 Chestnut St. — San Francisco, 485 California St.
Pittsburgh, National Lead & Oil Co. of Pa., 316 Fourth Ave.
Philadelphia, John T. Lewis & Bros. Co., 437 Chestnut St.

DUTCH BOY RED-LEAD

A Gas-Tight Line with *half* as many welds



ODEE pipe is furnished in double lengths with the ends cut smooth and beveled for perfect joints—reduces field-welding almost 50%. ODEE pipe carries our guarantee of outmost service, at prices that save you 1/3 or more. With a reasonable down-payment, the line can be financed out of income. We render real service on all sizes of new and used pipe and casing.

Write our nearest office.

Jos. GREENSPON'S Sons
Iron & Steel Company
Tulsa, Okla.—ST. LOUIS—Fort Worth, Tex.

Unusually Sensitive Control
for High Pressure Gas Transmission

The Fulton Duplex Sensitive Gas Governor is designed to meet the needs of artificial or natural gas companies who desire to control a high and varying inlet pressure and reduce it to a low and unvarying outlet pressure for illuminating or fuel purposes.

The power to operate this governor is derived from two diaphragms of equal area, moving in opposite directions, but transmitting their power in the same direction. This gives a vast increase in sensitiveness and power over that possessed by a governor with a single diaphragm.

The Governor is easily and quickly installed, and due to the simplicity of its construction, requires but little attention afterward.

Catalogue on request.

The Chaplin-Fulton Mfg. Co.
28-36 Penn Avenue :-: Pittsburgh, Pa.

SKINNER Clamps stop leaks

Send for Catalog
M. B. SKINNER CO., 562 Washington Boulevard, CHICAGO

CORPORATION COMMISSION ASKED TO APPROVE CURTAILMENT PLAN

By James McIntyre

Before the Indian Territory Illuminating Oil Co. drilled in its wildcat test in the C NW NW NW Section 1-7-6, which well has proved to be a 10,000-bbl. producer, an agreement was reached among operators as to the immediate future development of the near-by territory, subject to the approval of the Oklahoma Corporation Commission. This agreement was signed by the Tidal Oil Co., Pure Oil Co., Barnsdall Oil Co., Amerada Petroleum Corp., Prairie Oil & Gas Co., W. B. Pine, James G. Lyons, The Texas Company, Phillips Petroleum Co., T. B. Slick, Mid-Continent Petroleum Corp., Carter Oil Co., H. F. Wilcox Oil & Gas Co., Gladys Belle Oil Co., Shaffer Oil & Refining Co., Continental Oil Co., and the Indian Territory Illuminating Oil Co., all owners of leases in Section 1-7-6, 2-7-6, 35-8-6 and 36-8-6.

Because an unrestricted drilling campaign in the area would result in the production of more oil than pipe line facilities, storage and all other facilities would be able to absorb and handle it was agreed that the Indian Territory Illuminating Oil Co., whose lease was soon to expire, drill in its well and produce the maximum production of the well until the second well has been drilled to the Wilcox sand in the area, and that only the following wells be started at the option of the lease owners; two wells in S half SW Section 36; two wells in E half SE Section 35, one well in W half SE Section 35, all in Township 8-6; two wells in NE NE Section 2, one well in SE NE Section 2, one well in NE NW NW Section 1, one well in SW NW NW Section 1, one well in SE NW NW Section 1, one well in SW NW Section 1, all in Township 7-6.

It was agreed further that no other wells be started in the above area until after the completion of the first 12 permitted wells to the Wilcox sand and that all the wells completed would be restricted to a production of 100 bbls. a day, including the first well of the Indian Territory Illuminating Oil Co., which would be shut down to 100 bbls. a day upon the completion of the first of permitted wells.

Plan a Long Curtailment

As soon as the first of the permitted wells is completed to the Wilcox sand, the agreement provides, any lease owner may commence such wells as are deemed proper with the understanding that if they are completed within 100 days they shall be limited to 100 bbls. a day production. Any lease owner whose lease requirements make it necessary for him to complete a well to protect the lease is permitted to do so. It is understood that this will only apply to one or two properties in the restricted area.

A meeting was held to discuss means of making the above agreement binding on all parties. It was attended by the attorneys for the Tidal Oil Co., Indian Territory Illuminating Oil Co., Pure Oil Co., Carter Oil Co., Sinclair Oil & Gas Co., J. B. Lyons, Continental Oil Co., Shaffer Oil & Refining Co., Barnsdall Oil Co. and The Texas Company.

Umpire Ray M. Collins made a statement as to the attitude taken by producers who had not signed the agreement. The White Eagle Oil & Refining Co., he said, had given the Philmack Oil Co. a contract to start a well on its 40-acre piece by September 6. The White Eagle campany had since agreed to extend the time from September 6 to October 6 and although the Philmack company had not signed the agreement, Otis McClintock of the company had told Mr. Collins that the first well would not be started until necessary. Mr. Collins stated that Mr. Buckner of the Houston Oil Co. had assured him that he was for the agreement and that the Magnolia Petroleum Co. was expected to sign and that it would not start a well until the first of the permitted wells comes in. J. Edgar Pew had not signed the agreement for the Sun Oil Co. but had promised to give 10 days' notice before starting a well and Henry McGraw of the Gypsy Oil Co. would not sign, but Mr. Collins felt sure of sufficient advance notice before any drilling had been started by the Gypsy company. The Sinclair Oil & Gas Co. agreed not to start a well until the first of the permitted wells was in.

Umpire Collins' Petition

After the attorneys present had gone over the terms of the agreement Umpire Collins was instructed to petition the Corporation Commission for its approval of the contract and the action it involves and Mr. Collins has asked the commission to set a day for a hearing on the petition and the commission has appointed July 18 as the day. The meeting will be held in Oklahoma City. His petition sketches the history of the field and the unusual conditions prevailing there as follows:

"1. That the greater Seminole oil field in the State of Oklahoma embraces generally the lands situate in Townships Seven (7), Eight (8), Nine (9) and Ten (10) north, and in Ranges Five (5) and Six (6) east in said state, is one of the most prolific oil-producing regions in the United States, characterized by wells of unusually large capacity and is now producing about 425,000 bbls. per day from 558 wells, and 470 wells are now being drilled in said area.

"2. That at various times since the month of October, 1926, said field has produced oil in excess of the transportation and marketing facilities of said field and in excess of the reasonable market demands upon said field. The crude oil purchasing companies affiliated with state or interstate pipe lines are now purchasing about 330,000 bbls. per day of the output of said field, about 25,000 bbls. per day are being marketed therefrom through tank car shipments, and about 70,000 bbls. per day are now being run into steel storage, either located in said field or in the vicinity thereof. That in the several months preceding the filing of this application, the quantity of oil going into storage per day has been much greater than is now being disposed of in that manner; that since it became necessary to store a part of the production from said field about 7,500,000 bbls. in all have been put into storage in said field and is now so held by the producers disposing of their oil in that way.

Very Light Crude

"3. That the average gravity of crude oil produced in said field is 41 degrees Baume, and that said oil is produced under such conditions and possesses such qualities that the same subject to a more pronounced loss by evaporation than is true of other grades of petroleum; that for this reason your petitioner believes that the storage of oil in said field constitutes economic waste as that term is defined by the laws of Oklahoma.

"4. That the production from said field is now in excess of the transportation and marketing facilities thereof and the same is in excess of the reasonable market demands upon said field. That at the time of the filing of this petition said production is increasing from day to day which condition enlarges the margin between production and the marketing outlet of the field. That wells drilled in said field have a large initial capacity, usually ranging from 2,000 to 10,000 bbls. a day, but generally speaking the production thereof declines rather rapidly after the same have been producing several months; that this decline, supplemented by the fact that a number of large wells are being drilled in from time to time cause an extreme fluctuation in the output of said field which adds to the difficulty of taking care of the same under conditions that will prevent waste as defined by the statutes of Oklahoma.

Formations Loose and Porous

"5. That the producing formations in said field are unusually loose and porous and that the drainage area of a well or group of wells therein is thereby correspondingly enlarged; that generally speaking the natural gas content of the oil-

Series
60
600 lbs.

Investigate

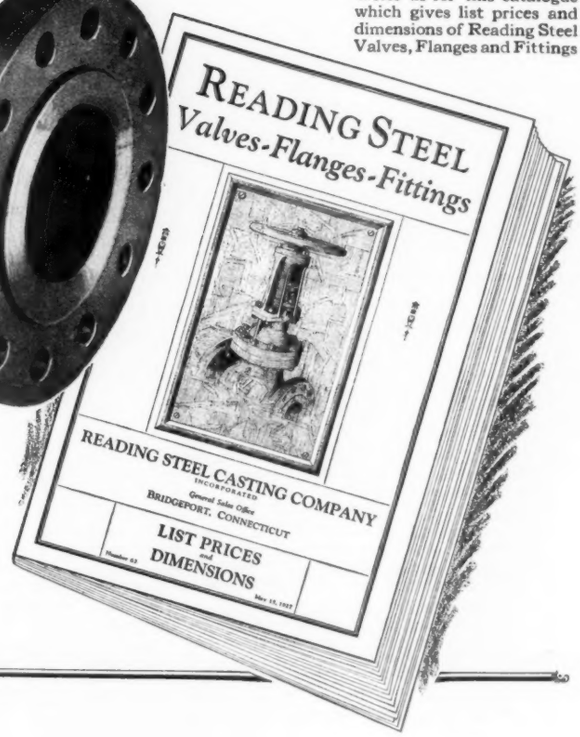
Complete lines of READING

Series 15, 30, 40, 60, 90

Steel gate valves

In stock at factory and district warehouses

Write us for this catalogue which gives list prices and dimensions of Reading Steel Valves, Flanges and Fittings



READING STEEL CASTING COMPANY, INC.

An Associate Company
of the American Chain Co., Inc.
BRIDGEPORT, CONNECTICUT

Offices and Warehouses:

Boston, Charlotte, Chicago, Cleveland, Detroit, Hartford, Houston, New York, Philadelphia, Pittsburgh, Rochester, St. Louis, San Francisco, Tulsa

Stocked by

Reading Steel Casting Co., Tulsa
Norvell-Wilder Hardware Co., Beaumont, Houston, Shreveport, Fort Worth.
Woodward, Wight & Co., Ltd., New Orleans.

READING *for* steel
PRATT&CADY *for* iron *and* bronze
specializing for quality valves and fittings
"There can be no compromise with safety"

"Central" Oil Country Tubular Goods

Large gas companies, after using "Central" Pipe, have commented upon its uniform lengths, perfect roundness, and careful beveling. These sterling qualities in "Central" reduce construction costs by speeding up the field work and, in addition, insure a tight durable line.
For complete satisfaction all around use "Central" Pipe on your next job.

CENTRAL TUBE COMPANY
General Offices—First National Bank Bldg.
PITTSBURGH

Representatives in the Oil Fields
Mid-Continent: Allen, Sproull & Allen, Burk Burnett Bldg., Fort Worth, Texas
California: E. C. Saul, Monadnock Bldg., San Francisco, California.
DISTRIBUTORS: Taubman Supply Corporation, Tulsa, Oklahoma, and branches; Dunigan Tool & Supply Co., Breckenridge, Texas, and branches; Putnam Supply Company, Putnam, Texas, and branches; Louisiana Iron & Supply Co., Shreveport, La., and branches; Petroleum Equipment Co., Los Angeles, California, and branches; American Supply Co., Mexia, Texas; Standard Supply Co., Inc., Wichita Falls, Texas.

Gott Water Can or Gottkool

Built to last—you will always be assured of a fresh supply of pure water, when you have a GOTT. Made in 1½, 3, 5 and 10 gallon sizes. Order now from your supply store.

H. P. GOTT MFG. CO.
Winfield, Kansas

McGREGOR
"The Working Barrel That Works"

Over sixty thousand now in use from Pennsylvania to Argentine and from Oklahoma to India wherever oil is produced.

No Barrel can compete with the McGregor in price and saving. It comes with the barrels, valves, valve stem all complete at a price slightly more than what the old style Barrel would cost. Pumps as fast as old style barrels that are attached to the tubing.

The only pulling done when you have a McGregor in use is the rods as the complete Barrel is fastened to the rods and comes out when they are pulled. TUBING PULLING is done away with as far as the Working Barrel is concerned. Made for all size tubing. Use "Mac" Ball and Seat.

See your dealer or write us for circular

← In ordering parts refer to these letters

McGREGOR WORKING BARREL CO., Inc.
Sole Manufacturers
BRADFORD, PENNA.

producing formations is small and the same is characterized by an unusually low pressure as result of which the production of oil on one tract of land or even on neighboring lands may result in a serious loss of gas or of gas pressure available to a producer on another tract of land, and thereby interfere with his gaining his proportion of the oil underlying his tract and adjacent or neighboring tracts in common. That owing to the peculiar nature of the field, it has been the custom therein from the beginning to lift the oil coming into the wells therein by air or gas pressure introduced from the surface, and that practically all of the wells now operating in the field have been so equipped. That this method of producing emphasizes the correlative duty of each operator to accelerate the production of his properties in order to prevent the actual drainage thereof or the loss of the pressure necessary for him to produce his oil. That in addition to these conditions there are many short-term leases in said field which require the drilling of wells in order to preserve the title of the holders thereof.

Only Practical Means

"6. That owing to the conditions set forth in the preceding paragraph of this petition, the only practical means of preventing waste in said field is to restrict drilling in isolated localities where such restrictions will not result in the drainage of properties or in the loss of gas pressure. That a number of operators in a part of said field have entered into an agreement not only to restrict drilling but also to limit the production of their wells therein in the manner set forth in such agreement. That a copy of such agreement is submitted herewith. That certain producers in the district affected by said contract have not consented thereto, and that the arrangement cannot be carried out unless all producers whose properties may be affected by such agreement are bound thereby. Your petitioner further states that the purpose of said agreement is to prevent waste as defined in the statutes of Oklahoma, and your petioner further states that such be the effect of said agreement if carried out by all producers whose properties are in the area covered by the contract.

"Wherefore, the premises considered, your petitioner prays that a day be set for a hearing on this petition, and that you cause notice to be served on all persons interested in the production from the area covered by said contract, and that upon such hearing an order be made carrying into effect the provisions of said contract and binding all persons interested in the production of said area."

CALIFORNIA BUREAU MAPS OF OIL FIELDS

The California State Mining Bureau publishes a very complete and comprehensive set of individual maps covering every producing oil field in the State of California. The data used is authentic and the maps are revised from time to time as development work advances and ownerships change. The fact that oil field maps containing every dry hole or producing well drilled in all California producing districts are available for general distribution should prove of particular interest to geologists and eastern operators especially in view of the important position which California occupies in the industry. This map work is done at cost and the price is therefore nominal, ranging from 50 cents to $1.25 per copy, depending on the district selected. The maps listed below all sell for 75 cents each with the exception of Long Beach, which is $1.25, Coalinga and Rosecrans maps, which are $1, and the Sargent map, which is 50 cents. These prices include postage and any maps desired can be secured by addressing the California State Mining Bureau, Ferry Building, San Francisco, Calif.

The following maps, printed on heavy paper, are now available for distribution: Map No. 1, Sargent, Santa Clara County; No. 2, Santa Maria, including Cat Canyon and Los Alamos; No. 3, Santa Maria, including Casmalia and Lompoc; No. 4, Whittier-Fullerton, including Olinda, Brea Canyon, Puente Hills, East Coyote and Richfield; No. 5, Whittier-Fullerton, including Whittier, West Coyote and Montebello; No. 6, Salt Lake, Los Angeles County; No. 7, Sunset and San Emidio, Kern County; No. 8, South Midway and Buena Vista Hills, Kern County; No. 9, North Midway and McKittrick, Kern County; map No. 10, Belridge and McKittrick front, Kern County; No. 11, Lost Hills and North Belridge, Kern County; No. 12, Devils Den, Kern County; No. 13, Kern River, Kern County; No. 14, Coalinga, Fresno County; No. 15, Elk Hills, Kern County; No. 16, Ventura-Ojai, Ventura County; No. 17, Santa Paula-Sespe, including Bardsdale, South Mountain and Camarillo, Ventura County No. 18, Piru-Simi-Newhall, Ventura County; No. 19, Arroyo Grande, San Luis Obispo County; No. 20, Long Beach, Los Angeles County; No. 21, Portion of District No. 4, showing boundaries of oil fields—Kern and Kings Counties; No. 22, portion of District No. 3, showing boundaries of oil fields—Santa Barbara County; No. 23, portion of District No. 2, showing boundaries of oil fields—Ventura County; No. 24, portion of Dictriet No. 1, showing boundaries of oil fields — Los Angeles and Orange Counties; No. 25, not available; No. 26, Huntington Beach, Orange County; No. 27, Santa Fe Springs, Los Angeles County; No. 28, Torrance, Los Angeles County; No. 29, Dominguez, Los Angeles County; No. 30, Rosecrans, Los Angeles County; No. 31, Inglewood, Los Angeles County; No. 32, Seal Beach, Los Angeles and Orange Counties.

ARGENTINA'S OUTPUT RUNNING AS IN 1926

Production of crude oil in the current year is running about the same scale as in 1926, the government producing from 50,000 to 55,000 tons monthly, while company production brings the total to from 80,000 to 85,000 tons. There is little change from month to month in the volume of Argentine production, and the gradual increase to be expected is ordinarily shown in the government reports at the end of the year.

There is no exportation of crude from Argentina practically speaking, only 48 tons being recorded for the first half of 1926. Imports of crude during that period amounted to 60,312 tons, practically all from Mexico and Peru. All the local production and imported crude are used by the refineries, probably between 90,000 and 100,000 tons per month.

High prices quoted for fuel oil in Buenos Aires and Montevideo prompted the operators of an American steamer to adjust the schedule for a call at Trinidad for fueling. This change increases the fuel consumption, but it is expected that it will permit a considerable reduction in total cost as Trinidad prices are less than $1 per barrel while the best price quoted for River Plate delivery was at Montevideo and approximately $2.85 a barrel.

E. G. SINCLAIR KILLED

CASPER, Wyo., July 9.—E. G. Sinclair, a former geologist for the Midwest Refining Co. with headquarters at the Casper office, was accidentally shot and killed on his ranch in Montana the past week. Mr. Sinclair had served as a geologist for many oil firms in this and other countries and was well known in the oil business generally. He came to Casper from South America, though he was born in Bottineau, N. D., in 1885. He met his death while hunting coyotes on a ranch he had recently bought in Montana and was by himself when the accident happened. His body was found several hours later, partly across a barbed wire fence and the discharged rifle on the ground under him.

LARGEST DIESEL FERRY

The Danish State Railways recently accepted deliver of what is declared to be the world's largest Diesel railway ferry, the "Korsor," which was put into operation between the Island of Sjaeland and the Island of Eyn on the trunk road tc the mainland of Denmark.

Why maintain unnecessary stocks of Copper Steel Sheets when Sheffield ships promptly on demand?

Specify Sheffield
Copper Steel Sheets

SHEFFIELD STEEL CORPORATION
KANSAS CITY, MO.

New Billet Reinforcing Bars . . Rail Steel Reinforcing Bars . . Blue Annealed Sheets . . Merchant Steel Bars
Merchant Iron Bars . . Bolt and Nut Products . . Sucker Rods . . Pull Rods . . Track Spikes . . Forgings

The NEILAN Back Pressure REGULATOR No. 50

NEILAN

INSURES ACCURATE CONTROL of PRESSURES

It will accurately control the flow of gas and gasoline vapors from casing heads, run tanks, traps, flowing and pumping wells.

It will accurately maintain a fixed back pressure in compression and absorption plants, and gathering systems, regardless of varying load changes.

In a system of distributing lines it will accurately maintain any desired pressure and relieve any excess pressure into low pressure lines.

The extremely simple design and construction eliminates all friction. It can safely be relied upon for sensitiveness and accuracy. All valves are full pipe size area.

Write for bulletins describing Neilan Control and Regulating Devices.

NEILAN, SCHUMACHER & CO.
641-651 Santa Fe Avenue, Los Angeles, California

REPRESENTATIVES

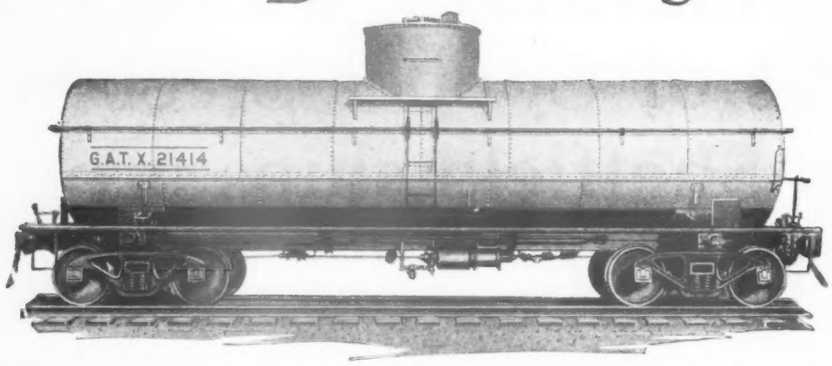
Maintenance Engineering Corp.
2000 Harrington Street
Houston, Texas

Pelican Well Tool & Supply Co.
Shreveport, La.

BRANCH OFFICE:
626 Mayo Bldg., Tulsa, Okla.; P. H. Wilkinson, Mgr.

"You Can Be Sure of Neilan Products"

EFFICIENT DEPENDABLE SERVICE



TANK CARS *of* ALL CLASSES BUILT *and* LEASED

For the TRANSPORTATION of LIQUID COMMODITIES

GENERAL AMERICAN TANK CAR CORPORATION

General Offices: ILLINOIS MERCHANTS BANK BLDG., CHICAGO, ILL.

BRANCH OFFICES:

Eastern Offices: 17 Battery Place, New York; Munsey Building, Washington, D. C.

Midwestern Offices: 1946 Railway Exchange, St. Louis, Mo.; 501 Cosden Bldg., Tulsa, Okla.

Southern Offices: Union Indemnity Bldg., New Orleans La.; Magnolia Bldg., Dallas, Texas

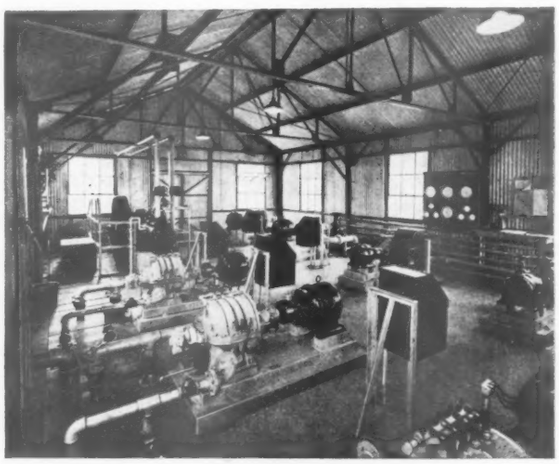
Pacific Coast Office Bartlett Bldg., Los Angeles, California

PLANTS: East Chicago, Ind. Good Hope, La. Warren, Ohio Fort Worth, Texas Sand Springs, Okla. Wichita Falls, Texas

Repairing Done and Repair Parts Carried In Stock At All Plants

Gasoline Plant Motors

Whether it's motors for main compressors or auxiliaries, we make a size or a speed that will suit.
We also make power and distribution transformers in all commercial sizes and voltages.
No frills just real husky motors that will stand up under punishment.



Auxiliaries in Gasoline Plant near Winfield, Kansas.

Products

Motors—Single and Polyphase Fynn-Weichsel Motors.

Transformers—Power and distribution.
Fans—Desk, Wall and Ceiling Types.

Official service representatives Lockheed four-wheel hydraulic brakes.

WAGNER ELECTRIC CORPORATION
Saint Louis, U. S. A.

WAGNER OIL FIELD SPECIALISTS LOCATED AT

Kansas City, Mo. Dallas, Texas
Houston, Texas San Francisco, Calif.
Los Angeles, Calif. Tulsa, Oklahoma

6336-6

The Tret-o-lite Process is Economical

Recovery cost only a few cents a barrel. Practically no power expense—no payment of royalty—minimum labor. Our nearest field representative is at your service.

Wm. S. Barnickel & Co.
ST. LOUIS, MO.

PRIMM OIL ENGINES

FOR DRILLING PUMPING AND PIPE LINE WORK

Hundreds are now used in the oil fields. Their satisfactory operation for years is the best recommendation to you.

—WRITE—

THE POWER MFG. CO.
722 Cheney Ave.,
MARION, OHIO

"Oil Engine Builders for a Quarter Century"

Original Eotvos Torsion Balances
Sold or Rented
GEORGE STEINER
330 Houston Post-Dispatch Building,
HOUSTON, TEXAS

Always Renew Your Subscription Promptly

Oil Possibilities of Canadian Sweetgrass Recall Early Report

By Victor Lauriston

CHATHAM, Ontario, July 8.—Some years ago R. H. Ewart, a United States geologist, in a report on the Sweetgrass arch made some references to the Canadian area which are of interest in the light of the recent oil showings in the Hart-Gree-Lerum well in Montana and the Devenish Petroleum's producer in southern Alberta. In part, the report is as follows:

"The Sweetgrass arch is truly an arch north of the Sweetgrass Mountains, whose western escarpment of the Eagle sandstone extends southward through Toole and Pondera Counties (Montana) in correct alignment. Aside from this western escarpment, the area south of the Sweetgrass Mountains ceases to be the same arch that is north of these mountains. South and east of the Sweetgrass Mountains a series of folding takes place in wavelike formation, each fold to the south rising a little higher than the last.

"The country is very difficult to work on account of the glacial drift covering the entire district, making exposures few for examination and often difficult to connect in their relations to each other. The writer spent over a year in the district before making the first well location.

"This country is very difficult from Wyoming and other Montana districts, where each dome or anticline is prominent and stands by itself, for the proper appraisement of the geologist.

"In this area a local situation cannot properly be passed upon without knowing its relation and position to the whole district. The apparent, unimportant in itself, is more than likely to have a much larger significance when sized up with the whole area.

"The presence of the glacial drift gives to the country a more flat appearance than it really is. It is only in the running of levels that the true perspective is obtained.

South of Hills

"The area south of the Sweetgrass hills is comparable with that across the boundary to the north as to formation and geological history as pertaining to their petroliferous or oil-bearing conditions or formation. From this viewpoint comparisons are appropriate. So far no complete tests have been made south of the Sweetgrass Mountains on proper geological structures.

"According to the Canadian Geological Survey, the Sweetgrass arch extends into Canada some 90 miles. In it is included the Bow Island gas field, and on the outer edges of this arch to the northeast is the Medicine Hat gas field. The outer contour lines show the top of the Bearpaw shale, the dip of the beds showing only a dip of about 10 feet to the mile as the formation rises toward the Sweetgrass Mountains.

"The Bow Island gas field lies within this arch, where gas in commercial quantities is found some 400 feet above the base of the Colorado, the wells ranging from 5,000,000 to as high as 29,000,000 feet. At Medicine Hat, on the northeast side of the Sweetgrass arch, the Eagle sandstone is productive of gas in commercial quantities. On the west side of the arch the Eagle sandstone carries water, its probable intake being from the Milk River district, where it is exposed.

"To date no oil has been found in the Colorado shales north of the boundary line, all production in the lower Cretaceous (being the horizon between the base of the Colorado shales and the Jurassic or Ellis) classified with us at the Kootenay. The Athabaska tar sands are in this horizon.

"Memoir 116, C. S. G. S., page 3, relative to the Kootenay formation, states: 'Well records furnish the only data we have on the Kootenay rocks of this area (Sweetgrass arch). They indicate that the Kootenay was a period of coal formation with possible marine and shallow marine conditions occurring at intervals.'

"The whole area south of the boundary

RYERSON

IMMEDIATE SHIPMENT FROM STOCK

Bars, Plates, Rivets, Tool Steel, Shapes, Sheets, Bolts, Welding Rods, Structurals, Tubes, Wire, Concrete Reinforcing, Rails, Pipe, Turnbuckles, Alloy Steel, Ascoloy, Small Tool, Machine Tools, etc.

Write for the Ryerson Journal and Stock List.

JOSEPH T. RYERSON & SON INC.

Chicago Detroit Milwaukee Buffalo St. Louis New York Cincinnati Cleveland Boston

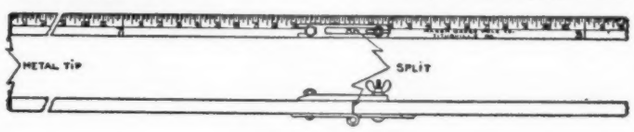
Tulsa Office: 410 Atlas Life Bldg.

STEEL

Houston Office: D. S. Mair 220 Main Street

GAUGE POLES

Any Length For Oil Measurements



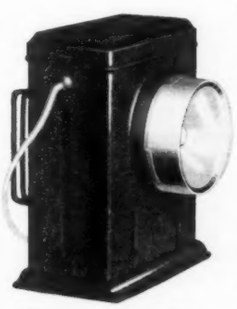
"MARSH-JOINT"

For sale by oil country supply houses or furnished promptly by the factory at Titusville, Pa.

Correspondence Solicited

MARSH GAUGE POLE COMPANY
TITUSVILLE, PA.

Super-Illumination, Safe, and Low-Priced



ELECTRIC LANTERN
No. 10, $2.75 *list*

THE FINEST light ever developed for workers in oil fields. Insures safety against fire and explosions. It is a powerful lantern, projecting a 300-foot flood of brilliant light. Burns by the hour on two No. 6 dry cells. Batteries last up to a year in ordinary usage.

Light but rugged—will last a lifetime. Made of sheet steel for tough wear and ribbed for extra strength. Finished in vivid red baked enamel. Durable. Attractive.

Scientifically designed for super illumination. Triple silver plated reflector, especially designed Mazda bulb, lens ground from select clear glass—all these elements precisely adjusted according to Delta standards for powerful light.

See your dealer—or write us.

DELTA ELECTRIC CO. 708 Delta Blk. MARION, Ind.

Preferred Opinions

The Oil and Gas Journal—with its bright yellow cover—on your desk or in your home indicates that your opinions regarding the Oil Business are to be given preference.

Be among the best informed oil men. Always renew your subscription promptly.

The OIL and GAS JOURNAL
Tulsa, Okla.

PIPE

RECONDITIONED
THREADED LINE PIPE
PLAIN-END ODEE
DOUBLE LENGTH PIPE
STANDARD RAIL & STEEL CO.
MADISON, ILL.S.

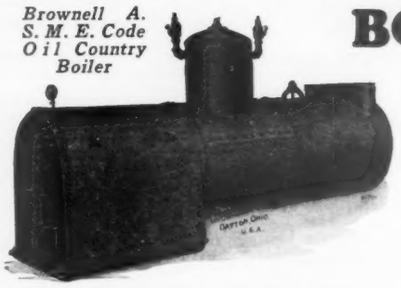
30,000 ft. 2" LINE PIPE
10,000 ft. 3" LINE PIPE
35,000 ft. 4" LINE PIPE
10,000 ft. 6" LINE PIPE
3,000 ft. 8" LINE PIPE

100,000 ft. 4" OD PLAIN END WELDED DOUBLE LENGTHS
50,000 ft. 5¾" OD PLAIN END WELDED DOUBLE LENGTHS
50,000 ft. 3½" OD PLAIN END WELDED DOUBLE LENGTHS
50,000 ft. 2¼" OD PLAIN END WELDED DOUBLE LENGTHS

WRITE FOR PRICES BEFORE PURCHASING ELSEWHERE

Brownell Hi-Pressure BOILERS

Brownell A. S. M. E. Code Oil Country Boiler



For oil country use Brownell offers a line of steel boilers specially designed for oil country needs.

Correct design, accurately known strength, superior craftmanship feature the Brownell line, and 71 years of boiler making experience stand "four square" back of them.

Get Bulletin B-7

THE BROWNELL CO., Dayton, Ohio, U. S. A.

Domestic Distributors: Dunigan Tool & Supply Co., Inc., Breckenridge, Tex.

Established 1855

Export Division: Oil Field Machinery Co., 90 West St., New York, N. Y.

Ajax Bull Ropes

"Strength in Every Length"

AJAX ROPE COMPANY INC.
SINGER BUILDING ANNEX
95-97 LIBERTY STREET
NEW YORK

R. S. G. LAWSON, President Reg. U. S. Pat. Off.

Mid-Continent Sales Distributors:
Bisett & Brown
1007 Jones Street
Fort Worth, Texas

Warehouse Representative:
H. D. Hedrick
Tulsa Transfer & Storage Co.
Tulsa, Okla.

Ajax ropes are carried in stock by the North Texas Supply Co., Cross Plains, Tex.; Rex Supply Co., Sour Lake, Tex., and Mid-Continent Supply Co., Fort Worth, Tex.

FAWCETT'S
BREEZY POINT LODGE

"Minnesota's Finest Summer Resort"
GOLFING - BATHING - FISHING
DANCING TENNIS
Address: W. H. FAWCETT, Owner, PEQUOT, MINN.

STEEL PLATE CONSTRUCTION

Steel Oil Storage Tanks, Condensers, Stills, Refinery equipment of every kind, Fabricated and Erected

RITER-CONLEY COMPANY

General Offices—Pittsburgh, Pa.

line as well as that north classified as the Sweetgrass arch was a part at the same time of the great Montana sea. The thinning out of the Eagle sand stone to the east, north of the line, also the lack of sands toward the east in the Colorado shales, have a similarity with our conditions here in the intrusion of the recession of the Cretaceous sea.

"The United Oils well No. 3, located in SW half Section 31-55-10w4, 20 miles north of the boundary, showed 100 feet of maltha at about 150 feet above the base of the Kootenay. This well penetrated the limestone or carboniferous some 300 feet with showings of both oil and gas. This well was drilled to a depth of 3,705 feet, commencing in the Foremost or Judith River beds.

"The Grand Trunk Pacific drilled a few hundred feet north of the boundary line near the West Butte. In this well the sand in the same horizon as the United Oils No. 3 yielded a vaseline-like substance. About 8 miles north of this latter well, the Beaver Oil Co. encountered the same conditions in the Kootenay.

"While these thick deposits of inspissated oil have no value, they are of interest as showing the possible oil horizons. Prospectors have told the writer of thick deposits of petroleum residue in the Sweetgrass Mountains, and it is only a natural situation that these deposits escaped with the disturbance which accompanied the intrusion of the Sweetgrass Mountains. On the entire arch to the north the formations rise toward these mountains without intervening folding which would make the above situation possible and probable."

JAPAN'S OIL OUTPUT SMALLEST SINCE 1916

Having regard to the gradual falling in oil production in Japan, the Nippon Oil Co. has tried at a heavy cost operating at deeper wells than before since 1925. This new venture showed good results in its opening year of 1925 when oil production increased somewhat, but the production last year receded again. The production of crude oil in Japan in recent years is as follows: 1916, 2,592,707 koku; 1921, 1,961,068; 1922, 1,789,596; 1923, 1,576,353; 1924, 1,579,212; 1925, 1,628,060; 1926, 1,550,000. (Koku equals 47.66 gallons.)

It will thus be seen that, barring 1925, last year's crude oil production is the smallest on record since 1916. The Nippon Oil Co. spent far more last year than the year before upon deep-well operation, but obtained poorer returns. Production for last year was smaller than the year before last. This may be regarded as strongly indicative of the growing exhaustion of the sources of oil in Japan.

In contradistinction to the diminution of its production, quotations on crude oil in the domestic market are consistently falling. The latest crude oil quotation is 9.30 yen (yen equals approximately 50 cents.) Compared with the beginning of last year and of the year before last, it shows a decline of 0.70 yen and 3 yen, respectively. Crude oil is the only example of an article falling sharply in both production and price. The cause of the decline in price in the face of the diminution of production lies in the marked increase in the import of cheap-priced crude oil in recent years. Crude oil import, which had amounted to 200,000 koku at the largest up till 1921, suddenly increased appreciably in 1923 and has been in excess of domestic production since the succeeding year. Last year's import of crude oil was 2,450,000 koku, exceeding domestic production by as much as 900,000 koku. The expansion of the import of crude oil is, of course, a reflex of the decrease of domestic production, but the direct cause of the swift expansion of the import in recent years is to be sought in the sharp break in its price in the world market accompanying the tremendous increase in production in the United States. Imported crude oil is now quoted at 5.50 yen to 7 yen per koku, or 2.3 yen to 4.20 yen lower than domestic production. Even taking into account the fact that imported crude oil is denuded

TANK CARS

Long or short term Lease

Thousands of cars—various capacities—all modern and conditioned. Rental periods of one trip to ten years. *Write for details.*

NORTH AMERICAN CAR CORPORATION
Executive Offices:
Chicago, Ill.

ARMSTRONG TWIN JAW CHAIN PIPE WRENCH

Points of Excellence

PROOF TESTED

Extra large bolt fastens jaws and handle solidly together.
Larger bearing of Jaw on Bar.
Chain Guides aid in adjusting chain and protect chain and end of bar from abrasion.
Every flat link chain is Proof Tested.
Extra large chrome-nickel alloy steel shackle link.

Write for Free Catalog

ARMSTRONG BROS. TOOL CO.
"The Tool Holder People"
330 N. Francisco Ave., CHICAGO, U. S. A.

Look Back to See Ahead!

Be sure to get a copy of the "Semiannual Review" of the Petroleum Industry which will be published in a July issue.

Study its contents. It will help you to outline a safe program for the next six months.

Renew your subscription promptly and you will be absolutely sure of getting the "Semiannual Review."

The OIL and GAS JOURNAL
Tulsa, Oklahoma
"AMERICA'S Greatest Petroleum Publication"

Quite Natural

As The Oil and Gas Journal leads in everything, it is quite natural that it should have the best petroleum publication classified section.

It is read with respectful consideration every week by thousands of oil men in all fields, refineries, pipe line stations, gasoline plants, supply houses and offices everywhere.

Whenever you want to buy or sell leases, production, royalties or equipment advertise in the Classified Wants Section. A 30-word advertisement can be run a month for $5.50.

The Oil and Gas Journal
TULSA, OKLA.

ARTHUR C. BROWN
SOLICITOR OF UNITED STATES AND FOREIGN PATENTS
406-412 KENNEDY BLDG.,
Tulsa, Okla.
Mr. Fred Krueger
in Charge
Phone 4-2319

TURK & MAULDIN
ATTORNEYS AT LAW
209-214 Ritz Building
(Tom F. Carey, Income Tax Counsel)
TULSA, OKLA.

Cables: Cealiach, New York Telephone: Whitehall 8256
JOHN EOGHAN KELLY
Consulting Engineer
17 Battery Place, New York City, N.Y.
Pasaje Coloma 6, Guatemala, C. A.
Examination, appraisal, management, negotiation of petroleum properties, mines, natural resources. Exceptional facilities in Latin America.

EDWIN B. HOPKINS
CONSULTING GEOLOGIST
25 Broadway
NEW YORK

PHILLIP MAVERICK
PETROLEUM GEOLOGIST
Telephone 93
Ricker & Dodson Bldg.
SAN ANGELO, TEXAS

Chester W. Washburne
Geologist and Engineer
27 William St., N. Y.

PATENTS *Write for Free Book*
MUNN & CO.
Associated for 81 years with the Scientific American
1551 Scientific American Building
24 West 40th Street, *New York City*
514 Scientific American Bldg., *Washington, D.C.*
1303 Tower Building, *Chicago, Ill.*
656 Hobart Building, *San Francisco, Cal.*
511 Van Nuys Building, *Los Angeles, Cal.*

TEXAS OIL MAPS
County and District
Catalog on Application
HEYDRICK MAPPING COMPANY
Wichita Falls, Texas

of volatile substance to a considerable extent, it is undeniably far cheaper than Japanese oil. This can be gathered also from the fact that the Nippon Oil Co., which has hitherto used exclusively the crude oil of domestic production, recently began to make naphtha from the imported crude oil and supply it at a fairly moderate price.

The Japan Oil Co. has compiled statistics showing petroleum supply and demand for the years 1922 to 1925, inclusive. These figures, while not official, are fairly reliable and furnish an interesting illustration of the trend of the market. The most striking features are an increase of nearly 60 per cent in total consumption of petroleum products, including an 88 per cent increase in gasoline consumption, nearly 100 per cent in consumption of light and heavy oils and of 60 per cent in machine oils; declines of 10 per cent in kerosene consumption and 8 per cent in crude oil production; an increase of over 50 per cent in domestic production of refined oils and a fourfold increase in imports of crude oil for domestic refining.

March petroleum production in Japan amounted to 114,335 koku, the koku equalling approximately 47⅔ gallons.

The Korean gasoline market was reported to be unsettled during the first quarter of 1927, due to low quotations from the Japan Oil Co., although retail quotations did not greatly change. Another important factor was the apparently keen endeavor to push motor benzol, a product of the Anshan coal mines in Manchuria, which is more effective in summer than in winter. This is the only other motor fuel on the market used in commercial quantities.

RUMANIANS REFUSE TO CHANGE OIL LAW

A dispatch from London says that repeated protests of oil companies have been successful in having the Rumanian government reduce its export tax on petroleum. The government also promises to reduce freight rates. Shell and Standard have led the opposition on these charges as well as against the Mining Law of 1924, being the only companies still holding out against permitting majority control to pass into Rumanian hands. One of their representatives said: "Despite continued costs of the fight, we do not propose to capitulate to coercion and establish a precedent for similar semiconfiscations of our properties in other countries."

These companies are opposed to the Rumanian government getting a foreign loan until they are given some satisfaction on these points. A statement of the government's oil land position was made by Vintila Bratiano, author of the Mining Law and an outstanding figure in shaping Rumania's business policy. He declared the law, in the main, will not be changed and that foreign companies refusing to conform to it will not get a share of the Rumanian government oil lands now being given out on concession. Thus the deadlock between the two leading oil companies and the government is about where it was three years ago.

URUGUAY FUEL CONTRACT

The Anglo-Mexican Petroleum Co., Ltd., was the successful bidder for the supply of fuel oil to the state-owned electric plant in Uruguay for the fiscal year 1927-28. The contract calls for the annual delivery of 60,000 metric tons of fuel oil at a price of 15.48 Uruguayan pesos (approximately $15.48) per ton. In 1926-27 this contract went to the Argentine Government, which operates oil properties in the Comodoro Rivadavia fields and furnished 55,000 tons at a price of 12.80 pesos.

TO DRILL IN COAHUILA

H. L. Doherty, president of Cities Service Co., has applied for a concession to drill for oil in the Mapimi Desert in the State of Coahuila.

Pack with Ebonite and Stop Leaks

Ebonite Sheet Packing eliminates leaky pipe line difficulties by its dependability in keeping joints and flanges tight on steam, water, air, oil or gas lines.

It will not harden, crumble or rot in service.

If your dealer cannot supply you promptly, write us.

QUAKER CITY RUBBER CO.
Wissinoming, Philadelphia
Branches: New York, Chicago, Pittsburgh, San Francisco

U. S. INDUSTRIAL DIAMOND CORP.

475 Fifth Ave., New York

Importers of all varieties of Industrial Diamonds

Carbon (Black Diamond) and Bort (Crystalline Diamond) for Diamond Core Drilling

Best shapes and qualities always in stock.

Parcels for examination and selection will be sent on request to reliable firms.

HARRY A. CAMPBELL F. LEE STEWART
NATIONAL PETROLEUM ENGINEERING COMPANY
ENGINEERS AND GEOLOGISTS
ATLAS LIFE BUILDING
TULSA, OKLAHOMA
APPRAISALS
REPORTS, COMMERCIAL AND TAX
SURVEYS
ESTIMATES OF OIL RESERVES

MYERS SELF-OILING POWER PUMPS AND WORKING HEADS

Positive and continuous self-lubrication, enclosed working parts, extra large valves and other radical departures in design and construction, provide exceptional power water facilities for mill, mine, or factory, contractor or highway builder, oil or gas operator. There is a style and size for every requirement. Over twenty-five thousand jobbers, supply houses and dealers distribute Myers Products. Ask yours, or write us direct.

THE F. E. MYERS & BRO. CO. Ashland, Ohio
ASHLAND PUMP AND HAY TOOL WORKS

CARBON (BLACK DIAMONDS) FOR DIAMOND CORE DRILLS

IMPORTERS
INDUSTRIAL DIAMONDS
MANUFACTURERS
DIAMOND POINTED TOOLS FOR ALL MECHANICAL PURPOSES
WRITE OR WIRE FOR CATALOGUE AND FULL PARTICULARS
THE DIAMOND DRILL CARBON CO.
61 PARK ROW, NEW YORK, N.Y. CABLE ADDRESS, CREDOTAN, N.Y.

No Classified Section

in the World Commands the Oil Man's Attention Like That of

The Oil and Gas Journal
PRODUCING REFINING MARKETING

Oklahoma-Kansas and Eastern Pipe Line Report

OKLAHOMA-KANSAS
Pipe Line Statement for April

Company—	Month	Daily Av.
*Prairie P. L. Co.	4,380,000	146,000
Gulf P. L. Co.	1,583,963	52,799
Texas P. L. Co.	941,632	31,388
Magnolia Pet. Co.	1,562,069	52,069
Cosden P. L. Co.	1,078,448	35,948
*Sinclair P. L. Co.	2,490,000	83,000
Empire P. L. Co.	1,041,497	34,717
*Other lines	12,720,000	424,000
Total April	25,797,609	859,921
Total March	26,152,714	843,636
Difference	355,105	16,285
Shipments		
†Prairie P. L. Co.	5,484,826	182,827
Gulf P. L. Co.	1,288,099	42,936
Texas P. L. Co	645,712	21,528
Magnolia Pet. Co.	1,286,241	42,875
Cosden P. L. Co.	954,712	31,824
†Sinclair P. L. Co.	2,637,233	84,574
Empire P. L. Co.	1,177,622	39,254
*Other lines	11,400,000	380,000
Total April	24,774,454	825,818
Total March	24,880,289	802,589
Difference	115,835	23,229
Stocks		
*Prairie Oil & Gas Co.	30,000,000	
*Prairie P. L. Co.	2,000,000	
Gulf P. L. and Gypsy Oil Co.	8,257,305	
The Texas Company	4,248,791	
Magnolia Pet. Co.	4,833,023	
Cosden P. L. Co.	2,446,239	
*Sinclair Crude Oil Pur. Co.	19,400,000	
Empire P. L. Co.	2,695,213	
Carter Oil Co.	14,657,522	
*Other lines	10,500,000	
Total April	99,083,093	
Total March	96,459,101	
Difference	2,623,992	

*Estimated. †Prairie Pipe Line shipments include Texas crude and Sinclair Pipe Line shipments include Wyoming and Texas crude. Note—Stocks do not include approximately 3,500,000 bbls. of crude oil held in storage on private tank farms and leases and approximately 2,500,000 bbls. of Texas Panhandle crude in storage in Oklahoma and Kansas.

EASTERN PIPE LINES
Runs From Wells

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for March and April:

	Mar. '27	Apr. '27
Nat. Transit	163,378.73	164,870.84
S. W. Pa. P. L.	100,592.96	88,641.89
Eureka P. L.	416,053.14	384,040.85
Buckeye P. L. (Macksburg)	360,086.67	330,728.39
Buckeye P. L. (Cleveland)	12,262.69	11,229.68
Buckeye P. L. (Lima, etc.)	126,642.07	117,721.95
Indiana P. L.	10,472.58	10,377.07
Cumberland P. L.	276,896.95	257,132.67
N. Y. Transit	24,066.99	22,203.37
Tidewater P. L.	189,659.31	178,148.47
Pure Oil	175,516.93	167,608.74
Emery P. L.	57,577.05	54,707.36
Paragon Dev.	29,944.63	27,120.07
Pittsburgh P. L.	5,324.14	5,667.22
Stoll Ref.	12,195.78	
Total	1,960,669.62	1,810,098.57
Daily average	63,247.41	60,336.60

Note: Indian Refining Co. also reported other receipts of 320,788.98 bbls. Paragon Refining Co. had other receipts of 114,945.43 bbls. Paragon Development had other receipts of 1,582.19 bbls. Pure Oil had other receipts of 9,751.43 bbls.

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for March and April:

	Mar. '27	Apr. '27
Nat. Transit	371,407.93	291,282.87
S. W. Pa. P. L.	394,577.29	358,167.37
Eureka P. L.	186,306.27	165,326.49
Buckeye P. L. (Macksburg)	162,229.20	170,657.32
Buckeye P. L. (Cleveland)	1,218.35	975.08
Buckeye P. L. (Lima, etc.)	851,500.60	945,498.20
Indiana P. L.	995,741.13	963,978.82
Cumberland P. L.	128,346.83	125,745.62
N. Y. Transit	97,577.19	164,631.87
Northern P. L.	161,689.55	181,685.31
Tidewater P. L.	108,290.33	118,938.50
Pure Oil	158,078.86	181,289.98
Emery P. L.	55,642.19	56,289.21
Paragon Ref.	103,362.66	113,995.67
Indian Ref.	329,602.47	331,923.45
Paragon Dev.	35,811.95	30,782.89
Pittsburgh P. L.	5,715.31	5,626.88
Total	4,147,099.11	4,206,795.53
Daily average	133,777.39	140,226.52

Gross Stocks

The gross stocks held by various pipe lines in the oil producing sections of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky, at the close of March and April were as follows:

	Mar. '27	Apr. '27
Nat. Transit	987,165.64	1,122,327.78
S. W. Pa. P. L.	716,181.84	736,241.91
Eureka P. L.	1,438,177.29	1,429,347.79
Buckeye P. L. (Macksburg)	457,603.45	438,197.58
Buckeye P. L. (Cleveland)	41,573.95	42,148.71
Buckeye P. L. (Lima, etc.)	3,545,161.61	3,868,077.13
Indiana P. L.	592,303.39	598,145.91
Cumberland P. L.	583,281.33	587,606.67
Southern P. L.	458,081.93	421,389.46
N. Y. Transit	803,826.11	750,482.15
Northern P. L.	485,204.86	448,142.25
Pure Oil	495,169.44	495,796.06
Emery P. L.	7,599.54	6,418.11
Paragon Ref.	27,096.71	27,679.47
Indian Ref.	141,081.41	130,280.76
Paragon Dev.	8,085.46	6,239.54
Pittsburgh P. L.	3,449.67	3,773.55
Total	10,794,043.63	11,112,294.83
Increase	674,881.27	318,251.20

Grades of Oil

The following table shows the amount of the different grades of oil held by the eastern pipe lines at the close of March and April, showing the gross stocks of the above fields:

	Mar. '27	Apr. '27
Pennsylvania	3,731,445.01	3,761,619.39
Lima	810,425.15	839,740.90
Kentucky	1,067,209.97	1,143,953.67
Mid-Continent	5,041,917.37	5,269,128.72
Illinois	143,046.13	97,852.15
Total	10,794,043.63	11,112,294.83

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1924	1925	1926	1927
January	62,638	56,831	55,630	56,209
February	68,023	60,606	60,394	61,298
March	68,721	60,575	61,644	63,247
April	71,058	63,062	63,019	60,337
May	63,942	59,217	60,580	.....
June	63,230	61,270	64,121	.....
July	64,208	62,639	63,206	.....
August	59,942	59,686	61,815	.....
September	62,930	62,510	64,639	.....
October	64,976	60,995	62,704	.....
November	56,282	59,350	61,774	.....
December	55,814	57,974	58,755	.....

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1924	1925	1926	1927
January	145,518	157,889	156,056	141,227
February	148,732	160,863	159,488	138,534
March	147,098	154,591	150,239	133,777
April	147,611	151,429	152,371	140,227
May	134,997	146,995	160,998	.....
June	143,010	149,467	160,257	.....
July	124,187	161,338	160,945	.....
August	123,120	161,730	151,929	.....
September	127,325	156,719	158,915	.....
October	123,170	145,388	161,132	.....
November	124,400	143,582	152,668	.....
December	151,392	150,162	136,428	.....

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields, including oil received from other lines at the close of each month for the past three years:

	1925	1926	1927
January	11,353,276	9,859,170	9,718,008
February	11,192,924	9,579,354	10,119,163
March	11,158,297	9,438,292	10,794,044
April	11,062,082	9,806,851	11,112,295
May	11,207,562	9,531,767	.....
June	11,093,796	9,585,904	.....
July	11,067,453	9,734,687	.....
August	10,974,481	9,668,947	.....
September	10,781,753	9,432,732	.....
October	11,086,850	9,269,806	.....
November	11,068,158	9,257,667	.....
December	10,458,445	9,454,512	.....

Franklin Pipe Line Co.

The following table exhibits the condition of the Franklin Pipe Line at the close of business for the months named and not counted in the stocks and averages reported above.

1926—	Runs	Shipments	Stocks
April	3,137.40	4,519.68	12,459.02
May	2,933.29	2,096.35	13,296.96
June	3,217.62	1,655.15	14,858.43
July	3,025.86	4,075.11	13,809.18
August	2,886.59	2,121.21	14,574.56
September	2,788.18	3,373.06	13,985.68
October	2,991.86	2,307.75	14,671.25
November	2,810.60	1,664.55	15,817.31
December	2,847.52	5,561.11	13,103.72
1927—			
January	2,841.54	1,470.42	14,274.84
February	2,764.30	1,082.82	15,956.32
March	2,587.20	1,878.56	16,664.96

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks May 1	2,476,177.39
Runs from wells	542,805.62
Other receipts	131,751.18
Regular deliveries	382,195.93
Other deliveries	479,034.86

The amount of Illinois oil run by the Tidewater Pipe Co. in April was 50,420.35 bbls. and deliveries were 62,622.57 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

1926—		
April	610,957.04	487,604.00
May	682,416.67	498,456.98
June	693,102.34	568,054.94
July	713,490.66	490,092.82
August	701,795.92	555,766.59
September	688,798.66	516,083.05
Ocotber	681,648.96	531,467.39
November	651,263.33	498,439.37
December	668,909.58	587,947.61
1927—	Runs	Deliveries
January	621,421.02	530,085.98
February	595,831.16	476,950.71
March	727,593.91	554,947.43
April	593,225.97	444,818.49

Tidewater Pipe Co., Ltd., also delivered in April, 191,291.56 bbls.

AVERAGE DAILY RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF COAST PORTS

Average bbls. per day—	ATLANTIC PORTS						GULF COAST PORTS						Total All Ports
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	New Orleans Baton Rouge	Port Arthur Sabine Pass	Tampa	Total		
February	26,214	3,036	32,750	8,571	18,250	88,821	.....	.....	.....	.....	.....		88,821
March	16,616	5,484	56,710	13,871	13,419	106,097	.....	.....	.....	484	.....		106,581
April	12,667	4,367	47,667	15,100	13,300	93,100	.....	.....	.....	.....	.....		93,100
May	10,452	7,645	18,387	9,226	6,226	51,935	.....	.....	.....	.....	.....		51,935

AVERAGE DAILY IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

Average bbls. per day—	ATLANTIC PORTS						GULF COAST PORTS					Total All Ports
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	New Orleans Baton Rouge	Port Arthur Sabine Pass	Tampa	Total	
February	12,000	14,429	87,286	5,321	26,714	145,750	4,786	46,786	2,143	3,607	57,322	203,072
March	4,677	13,161	63,484	9,226	26,129	116,677	6,742	36,258	2,419	4,871	50,290	166,967
April	22,700	9,033	62,033	6,067	26,567	126,400	5,067	18,033	.....	.....	23,100	149,500
May	21,032	9,807	93,452	7,774	23,580	155,645	1,807	30,612	1,936	.....	34,355	190,000

GROSS PRODUCTION OF THE UNITED STATES FOR 12 MONTHS

(IN BARRELS)

		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mountains	Eastern Fields	Total
1926—										
June:	Month	18,269,417	14,073,510	11,782,200	3,346,470	5,064,760	2,206,830	3,437,905	3,365,000	61,546,092
	Daily average	608,981	469,117	392,740	111,549	168,822	73,561	114,597	112,167	2,051,536
July:	Month	18,743,199	14,657,482	13,983,759	3,582,267	5,019,892	2,173,813	3,336,664	3,420,000	64,917,076
	Daily average	604,619	472,822	451,089	115,557	161,932	70,123	107,634	110,323	2,094,099
August:	Month	18,765,080	14,618,236	17,093,586	3,681,436	4,878,191	2,190,739	3,457,697	3,339,500	68,024,465
	Daily average	605,325	471,556	551,406	118,756	157,361	73,896	111,538	107,726	2,194,338
September:	Month	18,104,954	14,466,510	17,580,100	3,450,000	4,603,230	2,079,840	3,141,123	3,330,000	66,755,817
	Daily average	603,498	482,217	586,003	115,002	153,441	69,328	104,704	111,000	2,225,194
October:	Month	18,966,058	15,720,689	19,001,388	3,714,637	4,625,138	2,166,569	3,071,720	3,398,000	70,664,189
	Daily average	611,808	507,119	612,948	119,827	149,198	69,889	99,088	109,613	2,279,490
November:	Month	19,173,128	16,876,950	18,593,160	3,593,490	4,299,480	2,054,911	2,842,587	3,216,000	70,649,706
	Daily average	639,104	562,565	619,772	119,783	143,316	68,497	94,752	107,200	2,354,990
December:	Month	20,276,950	17,882,908	19,753,591	3,654,156	4,266,189	2,018,734	3,658,301	3,313,000	73,823,329
	Daily average	654,095	576,868	637,213	117,876	137,619	65,120	85,752	106,871	2,381,414
1927—										
January:	Month	20,184,872	19,030,745	18,546,990	3,668,323	4,076,469	1,905,570	2,610,303	3,332,500	73,355,773
	Daily average	651,125	613,895	598,290	118,333	131,499	61,471	84,203	107,500	2,366,315
February:	Month	17,982,711	19,752,348	16,483,292	3,349,416	3,574,256	1,784,104	2,385,135	3,007,200	68,318,463
	Daily average	642,240	705,441	588,689	119,622	127,652	63,718	85,183	107,400	2,439,945
March:	Month	19,835,724	22,480,921	18,417,100	3,672,849	3,853,920	1,896,425	2,466,798	3,620,800	76,244,537
	Daily average	639,862	725,191	594,100	118,479	124,320	61,175	79,574	116,800	2,459,501
April:	Month	19,466,087	22,289,160	17,800,740	3,530,490	3,378,240	1,994,730	2,615,770	3,474,000	74,549,217
	Daily average	648,870	742,972	593,358	117,683	112,608	66,491	87,192	115,800	2,484,974
May:	Month	19,506,054	23,229,770	19,479,811	3,683,637	3,493,669	1,935,175	2,742,588	3,467,000	77,547,704
	Daily average	629,238	749,670	628,381	118,827	112,699	62,425	88,471	111,839	2,501,539
Total 12 months		229,274,234	215,089,229	208,515,717	42,927,231	51,133,434	24,399,327	34,766,591	40,283,000	846,388,763

THOROUGHBRED

Thoroughbred means "bred from the best." Few winners are bred any other way.

It is much the same in pumps. Strong, efficient, durable pumps are usually the result of the "stock" from which they come—and the skill with which such stock is handled.

To be sure of good stock, we operate our own foundry. To be sure of careful handling we insist that every GASO workman go through an exacting course of training. That we are running a winning race is indicated by the frequent additions we are making to our manufacturing facilities.

GASO PUMP & BURNER MFG. CO.
TULSA · OKLAHOMA

A Winner Right From the Start

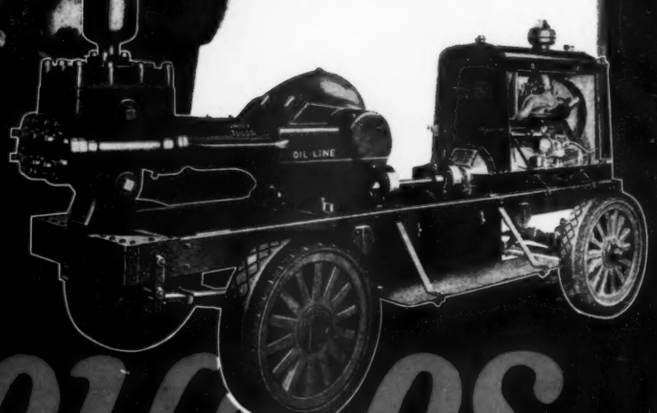
Three hours after the GASO Portable Pumping Unit made its official bow to the oil industry [at the 1925 Petroleum Exposition] a forward-looking oil company had bought it.

Six months later, as the operation of this unit became generally known, orders were taxing production facilities.

Today a 50% addition is being made to our plant—largely because of the demand for the Portable Unit.

Here is a Portable, Self-Lubricating, Worm-Drive Pump, designed for all types of emergency service. Ideal for "pickup" in pipe-line breaks; extensively used in Seminole for water service; ready for operation anywhere, at any time.

Capacity, from 45 barrels at 800 pounds pressure to 250 at 275 pounds pressure. Buda, 40-horse-power motor. Furnished complete on trailer or skids. Ask us for further information.



GASO PUMPS

for every oil industry need

Safety is true Economy

HUGHES "SELF-CLEANING" CONES

have proven by millions of feet of actual performance that they offer a maximum degree of safety to the operator.

The design, material, workmanship and tests entering into the finished product combine to safeguard the high standard of performance attained by HUGHES TOOLS through the past decade of service.

Hughes "Self Cleaning" Cones are recognized as the greatest invention for the Rotary operator since the invention of the original Hughes Rock Bit.

HUGHES TOOL COMPANY

Service Plants
LOS ANGELES, CALIF.
OKLAHOMA CITY, OKLA.

MAIN OFFICE AND PLANT
HOUSTON, TEXAS

Export Office
NEW YORK CITY, N.Y.